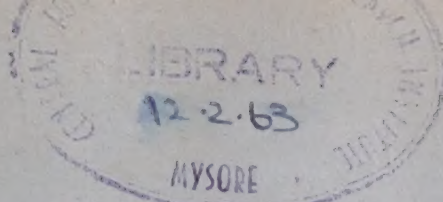


56198 T059264

7



P&D.6.58

160



GOVERNMENT OF INDIA

THE PATENT OFFICE

PATENT OFFICE JOURNAL

1958

(Containing matters relating to Patents and Designs
for the Years 1956 to 1958)



PRINTED IN INDIA, BY THE MANAGER, GOVERNMENT OF INDIA PRESS, CALCUTTA.
AND PUBLISHED BY THE MANAGER OF PUBLICATIONS, CIVIL LINES, DELHI, 1961.

Price Rs. 60.00 or 91 Sh.

List of Agents for the sale of Government of India Publications as on 31-12-57.

AGRA—

Balagovind Kuber Das & Co.
English Book Depot, Taj Road.
Lakshmi Narayan Agarwal, Hospital Road.
National Book House, Jeonimandi.
Peoples' Book Centre, M. G. Road (R).
Wadhwa & Co., Raja Mandi.

AHMEDABAD—

Chandra Kant Chiman Lal Vora, Gandhi Road.
Hari Har Book Depot.
Mahajan Bros. (R).
New Order Book Co., Ellis Bridge.
Sastu Kitab Ghar (R).

AJMER—

Book Land, 663, Madar Gate.
Law Book House (R).
Rajputana Book House.

AKOLA—

Bakshi, M. G.

ALIGARH—

Friends' Book House, M. U. Market.

ALLAHABAD—

Central Book Depot, 44, Johnstonganj.
Kitabistan, 17-A, Kamala Nehru Market.
Law Book Co., P. B. No. 4, Sardar Patel Marg.
Law Publishing House (R), 33, Sheo Charanlal Road.
Ram Narain Lal, 2, Katma Road.
Students' Friends, 2, Hewett Road.
**Supdt., Printing & Stationery, U.P.*
Universal Book Co.
University Book Agency (of Lahore) P.B. No. 63.
Wadhwa & Co. (R).
Wheeler & Co., A. H.

ALWAR—

Jain Book Stores, Hope Circus.

AMBALA—

English Book Depot.
Sohan Lal Publications.

AMRITSAR—

Amar Nath & Sons (R).
S. Gupta, Near Arya Samaj Bazar, Pashamwala (R).
The Law Book Agency, G. T. Road, Putligarh.
Wishwa Nath Dhowan (R).

ANAND—

Charater Book Stall, Station Road.
Vijaya Stores (R), Station Road.

BANARAS—

Banaras Book Corporation, University Road,
P. O. Lanka.
Chawkhamba Sanskrit Series, K-37/108, Gopal
Mandir Lane.
Kohi-Noor Stores.
Students' Friends, University Gate.

BANGALORE—

Book Emporium, 118, Mount Joy Road, Baswangudi
P. O.
Makkala Pustaka Press, Jayachamaraja Road (R).
Maruthi Book Depot (R).
Standard Book Depot, Avenue Road.
The Bangalore Press, Lake View, Mysore, P. O.
Box 7.
The Bangalore Legal Practitioners Co-op. Society
Ltd.
Vichar Sahitya Ltd., Balepet.

BAREILLY—

Agarwal Brothers, Bara Bazar (R).
Saraswati Sadan, 19, Subhas Market.

BARODA—

Good Companions.
Shri Chandrakant Mohanlal Shah (R), Raopura.

BHAGALPUR—

Dealers Welfare Syndicate, 13, Anant Ram Lane.
Jagriti (R).
Paper Stationery Stores, D. M. Singh Road.

BHILWARA—

Damodar Lal Jugal Kishore (R).

BHOPAL—

Allied Traders, Motia Park.
**Supdt., State Govt. Press.*

BIKANIR—

Bhadani Bros., K. E. M. Road (R).

BOMBAY—

Arjan Das Gajanan Dass (Lib.), Santa-Cruz Air Port
Bhayani Bros. (R).

BOMBAY—contd.

Bombay Book House (R) 5, Mohd. Ali Road.
Charles Lambert & Co., P. B. No. 1032.
Co-operators Book Depot, 9, Bake House Lane
M. G. Road.
Current Book House.
Current Technical Literature Co., Ltd., 133, M. G.
Road.
D. Wamadio & Co. (R).
Elpees Agencies.
Indo-Overseas Trading Co.
International Agencies, 195, Hornby Road (R).
International Book House Ltd., Ash Lane, M. G.
Road.
Lakhani Book Depot.
New Book Co., 188-190, Hornby Road.
P. H. Rama Krishna & Sons, Shivaji Park Road,
No. 5 (R).
P. P. H. Book-Stall.
Popular Book Depot, Lamington Road.
Shreyansh Prakashan.
Sunder Das Gian Chand, Calcutta Street.
**Supdt., Ptg. & Sty., Queens Road.*
Taraporevala Sons & Co., D. B.
Thacker & Co.
The Kothari Book Depot, King Edward Road.
The Book Centre Ltd., Ranade Road, Dadar.
Tripathi & Co., N. M. Princes Street.
Wheeler & Co., A. H., 249, Hornby Road.

CALCUTTA—

Chakravarty Chatterji & Co., Ltd. 15, College Square.
Chatterji & Co., 3, Bacha Ram Chatterjee Lane.
Das Gupta & Co. Ltd., 54/3, College Street.
Eastern Trading Co., 64A, Dharmatala Street (R).
Firma K. L. Mukhopadhyaya, 6/1A, Banchha Ram
Akrur Lane.
Foreign Publishers Agency (R), 15/3, Chowringee Rd.
Hindi Library, 69A, Balaram De Street.
K. K. Roy (R).
Lahiri & Co. Ltd., S. K.
M. C. Sarkar & Sons Ltd., 14, Bankim Chatterjee
Street.
M. N. Roy Choudhury & Co.
Newman & Co.
Orient Book Co., 9, Shyama Charan Dey Street.
Oxford Book & Sty. Co., 17, Park Street.
R. Cambray & Co., Ltd., Kent House, P-33, Mission
Row Extn.
Sarkar & Sons Ltd., S. C., 1/1/10, College Square.
Sm. P. D. Upadhyay (R), 7, Marcus Square.
Soor & Co. (R).
Thacker Spink & Co. (1933) Ltd.
The Modern Book Depot (R).

CALCUT—

P. K. Brothers, Huzur Road.

CHANDIGARH—

Jain Law Agency, Flat No. 8, Sector No. 22.
Rama News Agency.
**Supdt., Govt. Printing & Sty., Punjab.*

CHHATRARAPUR—

Vardhman Sahkari Samity Ltd. (R).

CHITTORGARH—

Chhaganlal Bhandhari (R).

CHURU (RAJ)—

Bagaria Bros. (R).

COIMBATOE—

Gowders & Co., 309-10, Avanashi Rd.

COCHIN—

Saraswat Corporation Ltd.

CUTTACK—

Cuttack Law Times.
D. P. Sure Sons (R), Mangalabag.
Parbhat K. Mahapatra, Chandni Chowk.
**Press Officer, Orissa Sectt.*
Utkal Stores, Balni Bazar.

DEHRA DUN—

Bishen Singh (R).
Jugal Kishre & Co.
National News Agency, Paltan Bazar.

DAMOH—

Ram Shankar Agarwal (R), Naya Bazar.

DELHI—

Aggarwal & Co. (R).
All India Educational Supply Co. (R).
Atma Ram & Sons, Kashmeri Gate.



GOVERNMENT OF INDIA
THE PATENT OFFICE

**PATENT OFFICE
JOURNAL**

1958

*(Containing matters relating to Patents and Designs
for the Years 1956 to 1958)*



PRINTED IN INDIA, BY THE MANAGER, GOVERNMENT OF INDIA PRESS, CALCUTTA,
AND PUBLISHED BY THE MANAGER OF PUBLICATIONS, CIVIL LINES, DELHI, 1961.

Price Rs. 60-00 or 91 Sh

CONTENTS.

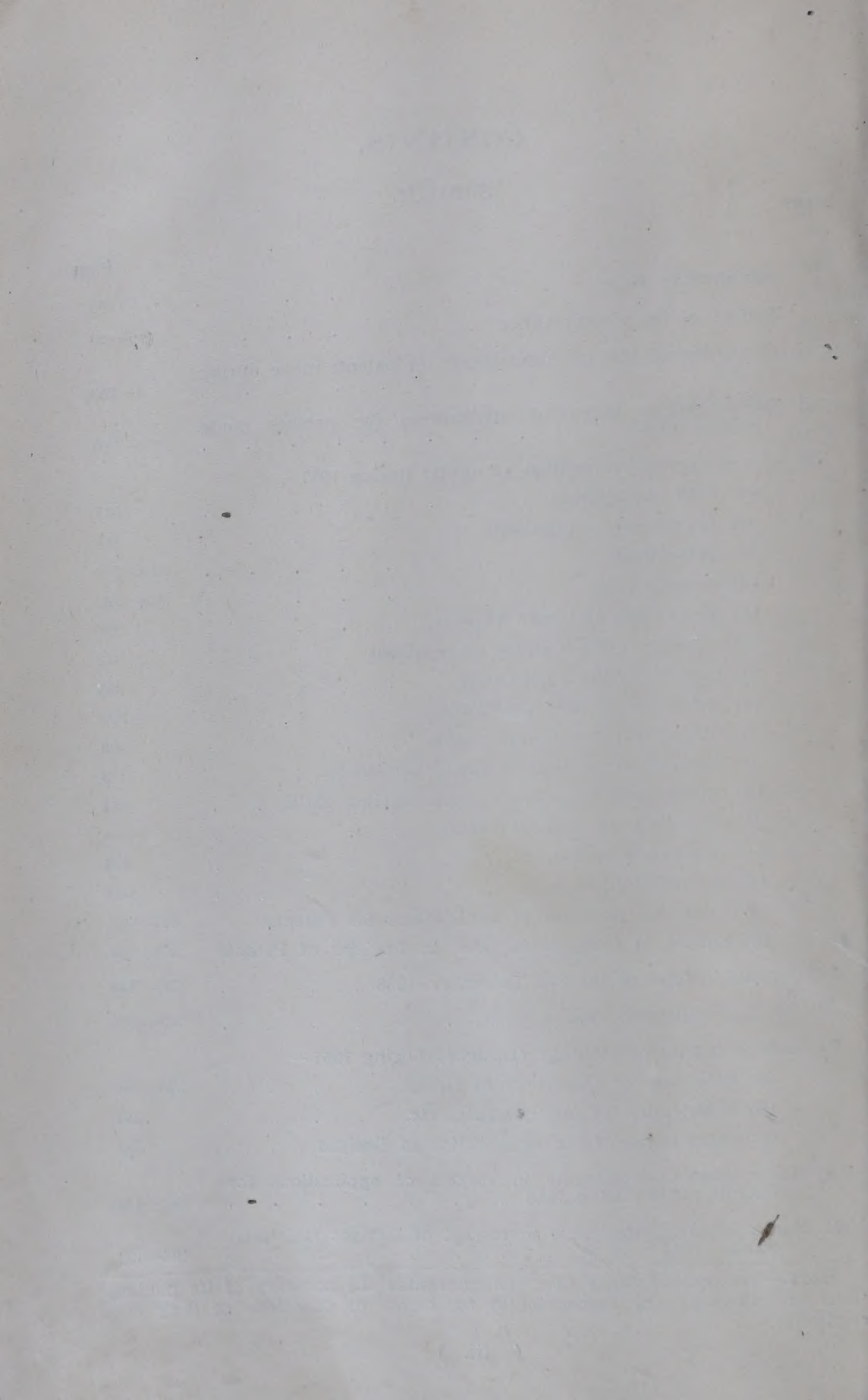
SUBJECT.

PART

PAGE

Introductory Note	(v)
Notices of the Patent Office	(vii—x)
I. Chronological List of Applications for patents made during 1956	1—203
II. Subject-matter Index of applications for patents made during 1956	204—316
III. List of special proceedings (Patents) during 1957—	
(a) Void applications	317
(b) Abandoned applications	318
(c) Oppositions	318—320
(d) Amendments	320—322
(e) Restoration of lapsed Patents	322
(f) Appeals to the Central Government	323
(g) Appeals to the High Court	323
(h) Extension of term of Patents	323
(i) Application for Compensation	323
(j) Application for licences under Section 22	323
(k) Application for licences under Section 23CC	324
(l) Correction of clerical errors	324
(m) Revocation of Patents	324
(n) Surrender of Patents	324
(o) Alteration of dates of applications for Patents	324—327
(p) Entries of assignments, etc., in Register of Patents	328—331
IV. Patents in force on the 31st December, 1958	332—358
V. Designs registered during 1957	359—378
VI. List of special proceedings (Designs) during 1957—	
(a) Extension of Copyright in Designs	379—386
(b) Registration of Assignments, etc.	381
(c) Cancellation of the Registration of Designs	381
VII. Name Index of applicants in respect of applications for Patents made during 1956	382—424
VIII. Name Index of applicants in respect of Designs registered during 1957	425—433

NOTE.—The Patent Office does not guarantee the accuracy of its publications or undertake any responsibility for errors or omissions or their consequences



INTRODUCTORY NOTE

This volume deals mainly with applications for the grant of patents made during the year 1956 and designs registered during the year 1957 under the Indian Patents and Designs Act, 1911 (II of 1911), and forms a continuation of the Consolidated volumes for 1900-1911 and 1912-1920 and of the Journals issued for the periods 1921 to 1957. The lists of special proceedings in respect of patents and designs included in this volume cover the period 1957.

A list of the patents in force on the 31st December, 1958 is given in Part IV of this volume.

Pending the next issue of this Journal, the Weekly Notifications of the Patent Office published in the Gazette of India, Part III, Section 2 should be consulted.

S. VENKATESWARAN,

Controlle-General of Patents, Designs and Trade Marks.

NOTICES OF THE PATENT OFFICE

1. *Patent Office Address and Communications.*—The Patent Office which administers the Indian Patents and Designs Act and grants patents thereunder is situated at 214, Lower Circular Road, Calcutta-17. It has no branches anywhere. The Office is in charge of the Controller of Patents and Designs. All communications intended for the Patent Office should be addressed to the Controller of Patents and Designs.

2. *Office Hours.*—The Office and the Public Room attached to it are open to the public from 10 A.M. to 5 P.M. on week days. On Sundays, last Saturdays in the months and Government holidays the Office remains closed to the public.

3. *Existing Law and Instructions.*—The existing law governing the grant of patents and registration of designs in India, and detailed instructions for the preparation of the specifications and drawings and other directions for the guidance of inventors and others are given in the PATENT OFFICE HANDBOOK, Tenth Edition.

A booklet entitled “GENERAL INFORMATION FOR APPLICANTS FOR PATENTS” containing instructions for inventors for making applications for patents for their inventions has been issued.

As the value of patents depends largely upon the skilful preparation of the specifications and claims, applicants for patents are in their own interest, advised to consult the Handbook or the above booklet before an application is made to the Controller.

A similar booklet entitled “A GUIDE FOR APPLICANTS FOR THE REGISTRATION OF DESIGNS” containing necessary instructions for registration of designs has also been issued.

Copies of the above two booklets may be obtained free on application to the Controller of Patents and Designs.

4. *Sale of Publications.*—The Patent Office Handbook, Tenth Edition (Price Rs. 6.00 nP. per copy) is on sale with the Manager of Publications, Civil Lines, Delhi, and with the In-charge, Government of India Book Depot, 8, Hastings Street, Calcutta-1.

Printed specifications of inventions bearing numbers 1 to 60000 are sold by the Patent Office. Printed specifications

from 60001 onwards are stocked by the Incharge, Government of India Book Depot, 8, Hastings Street, Calcutta-1, and copies thereof may be obtained from him either on cash payment or by mail order.

Other publications of the Patent Office are on sale at the Office of the Manager of Publications, Civil Lines, Delhi. Copies of the said publications are also available at the Government of India Book Depot, 8, Hastings Street, Calcutta-1, for local sale on cash payment at the counter of the Depot.

5. *Inspection Centres*.—The printed specifications of inventions and other publications of the Patent Office have been deposited for inspection of the public, FREE OF CHARGE, at the following places:—

ALLAHABAD	The Director, Sheila Dhar Institute of Soil Science, University of Allahabad, 2-D, Beli Road, Allahabad, U.P.
ANNAMALAINAGAR	The Librarian, Annamalai University Library, Annamalaiagar, P.O. South Arcot Dist. Madras.
BANGALORE	The Director, Indian Institute of Science, Bangalore, Mysore.
BARODA	The Deputy Director of Industries, Kothi Main Building, 2nd Floor, Baroda.
BHAVNAGAR	The Director, Central Salt Research Institute, Bhavnagar, Gujarat.
BOMBAY	The Registrar of Trade Marks, Central Buildings, Queen's Road, Bombay-1.
"	The Director, Department of Chemical Technology, Matunga, Bombay.
CALCUTTA	The Controller of Patents and Designs, The Patent Office, 214, Lower Circular Road, Calcutta-17.
"	The Director, Central Glass and Ceramic Research Institute, Jadavpur, Calcutta-32.
"	The Secretary, Councils of the University Colleges of Science and Technology, 92, Upper Circular Road, Calcutta-9.
COONOR	The Director, Nutrition Research Laboratories, Indian Council of Medical Research, Coonor, Madras.
CUTTACK	The Librarian, Kanika Library, Ravenshaw College, Cuttack-3, Orissa.
DEHRA DUN	The President, Forest Research Institute & Colleges, Dehra Dun, U.P.
DELHI	The Director, Council of Scientific and Industrial Research, Old Mill Road, New Delhi.

DELHI	The Director, Shri Ram Institute for Industrial Research, 19, University Road, Civil Lines, Delhi-8.
"	The Registrar, University of Delhi, Delhi.
"	The Director, National Physical Laboratory of India, New Delhi-12.
HOWRAH	The Principal, Bengal Engineering College, Sibpur, Howrah, West Bengal.
HYDERABAD	The Director, Scientific and Industrial Research, Osmania University, Hyderabad, Deccan.
"	The Librarian, Asafia State Library, Afzalganj, Hyderabad, Deccan.
JABALPUR	The Principal, Government Engineering College, Jabalpur, Madhya Pradesh.
JAMSHEDPUR	The Director, National Metallurgical Laboratory, Jamshedpur, Bihar.
JORHAT	The Principal, H. R. H. The Prince of Wales Technical School, Jorhat, Assam.
KANPUR	The Principal, Harcourt Butler Technological Institute, Kanpur, U.P.
KARAIKUDI	The Director, Central Electro-Chemical Research Institute, Karaikudi, Madras.
LUCKNOW	The Librarian, Amiruddaula Public Library, Lucknow, U.P.
"	The Director, National Botanical Gardens, Lucknow, U.P.
"	The Director, Central Drug Research Institute, Lucknow, U.P.
MADRAS	The Curator, Record Office, Egmore, Madras-5.
"	The Principal, College of Engineering, Madras.
"	The Director, Central Leather Research Institute, Madras.
MUNICH (Germany).	The President, The German Patent Office, Munich-2, West Germany.
MYSORE	The Director, Central Food Technological Research Institute, Mysore.
PATNA	The Director of Industries, Bihar, Patna, Bihar.
POONA	The Curator, Lord Reay Maharashtra Industrial Museum, Phule Market Tower, Poona-2, Maharashtra.
"	The Director, National Chemical Laboratory of India, Poona-8, Maharashtra.
ROORKE	The Director, Central Building Research Institute, Roorkee, U. P.

TRIVANDRUM	.	The Director, Central Research Institute, University of Kerala, Trivandrum, Kerala.
WALTAIR	.	The Registrar, Andhra University, Waltair, Andhra.
WASHINGTON (U. S. A.).	.	The Commissioner of Patents, The Patent Office, Washington, D. C.

The publications of the Patent Office other than printed specifications are available for free inspection also at the office of the High Commission of India, India House, Aldwych, London, W.C.-2, England.

PART I.

Applications for Patents, 1956.

This part contains the chronological list of applications for patents made during the year 1956. The date and the number of each application, the name of the applicant and the title of the invention are stated in all cases except where the applications are deemed to have been refused (shown in this volume as "Void") and the specifications in respect of which have not been published. These details are followed by a brief indication of the nature of the invention so as to supplement in a few words, the information given in the title of the application.

The dates shown in crescent brackets are the dates allowed or claimed under reciprocal arrangements.

JANUARY 2.

56198. Void.

56199. Stamicarbon N. V. Process for preparing coarse-grained urea adding a frothing agent to urea solution.

56200. Imperial Chemical Industries Limited. Improvements in or relating to a method for insolubilising artificial filaments, threads, fibres and the like. Treating the bundle of filaments successively with aqueous salt solution, formaldehyde at a pH of not higher than 3, washing, stretching and drying the filaments.

56201. Imperial Chemical Industries Limited. Dyeing process. (January 12, 1955.) Treating textile materials with a dispersion of azo dyestuff obtained by coupling diazotised primary aromatic amine with 8-hydroxy quinoline, 4-hydroxybenzthiazole or 4-hydroxy acridine and thereafter treating textile material with metallising agent.

56202. The English Electric Company Limited. Improvements in and relating to electric circuit interrupters. (January 14, 1955.) Includes one pair of separable interrupting contacts immersed in an arc-quenching fluid one contact of each pair being on a rotatable shaft.

56203. Void.

JANUARY 3.

56204. Dunlop Rubber Company Limited. Improvements in or relating to sealing means for tubeless pneumatic tyres. Substantially channel shaped annular rubber band with flexible side portions engaging side walls of the tyre.

56205. Dunlop Rubber Company Limited. Improvements relating to pneumatic tyres. (September 29, 1955.) Band extends circumferentially around the tubeless tyre tread to cause beads to be moved apart.

56206. C. G. Munters. Improvements in or relating to moisture or vapour exchangers for gaseous media. (January 31, 1955.) Including housing with separate inlet, outlet and duct for each gas current and a transfer body with open channels and containing hygroscopic material, the housing and body undergoing relative movement along closed circuit.

56207. Ateliers De Constructions Electriques De Charleroi. Improvements relating to sound recording and reproducing apparatus. Record advanced step by step by a mechanism comprising two worms one at each side of the record

engaging notches on edges of the record, the recording and reproducing head is moved across the record in successive reverse directions and means for rotating the worms simultaneously and intermittently to produce step-by-step movement of record.

56208. Ateliers De Constructions Electriques De Charleroi. Improvements relating to sound recording and reproducing apparatus. Record advanced step by step and recording and reproducing head moved across the record in successive reverse directions during period of rest of the record and means for controlling record advance and movement of the head so that the movement of the head along particular transverse run of sound track during reproduction necessarily takes place in the direction in which same run of sound track was recorded.

56209. Imperial Chemical Industries Limited. Dyeing process. (January 12, 1955.) Apply metallisable dyestuff and treating the textile materials with co-ordination compound of metal.

56210. W. J. Silberkuhl. Improvements in or relating to wide-span building construction. Arched roof trusses span the breadth or length and are surmounted by window opening.

56211. United States Pipe and Foundry Company. Improvements in or relating to a device for applying coating material and to a centrifugal casting apparatus employing the device. Having a metal mold which is adapted to rotate about its horizontal axis and to reciprocate longitudinally.

56212. United States Pipe and Foundry Company. Improvements in or relating to casting method. Pouring molten metal non-retractively into one end of a mold which is rotating to distribute the metal uniformly throughout the inner mold surface by centrifugal force.

56213. The Birmingham Small Arms Company Limited. Improvements in or relating to transmission systems for motor vehicle. Engine, hydraulic coupling, a multi-speed edicyclic gear box with power take off, and an auxiliary planetary overdrive transmission between engine and gear box.

56214. The Birmingham Small Arms Company Limited. Improvements in and relating to brakes for controlling rotary motions. A primary brake band element and two or more secondary brake band elements, gaps between adjacent ends of which are disposed at positions diametrically opposite to anchorage points of respective band elements.

56215. Sterling Drug Inc. Process for continuously oxidising combustible materials. By passing a combustible material disposed in liquid water and oxygen containing gas into a reaction zone under superatmospheric pressure.

56216. Sterling Drug Inc. Improvements in or relating to process and apparatus for partial pressure distillation. By inter-mixing the feed to be distilled with an inert non-condensable gas, elevating the temperature, adding additional heat and condensing the saturated vapours.

56217. Sterling Drug Inc. Process and apparatus for super-heating vapours. By entraining combustible in a vapour stream containing oxygen, causing superheat thereof; cycling at least a part thereof in counter-current relationship and withdrawing the balance of the superheat for power conversion.

56218. Sterling Drug Inc. Process and apparatus for heating liquors containing heat solidifiable components. By introducing a heated gas liquid mixture into a liquor containing heat solidifiable components and thereby elevate the temperature of the liquor.

56219. Sterling Drug Inc. Process and apparatus for starting a continuous autogenetic oxygenating process. By heating a mixture of aqueous dispersion of combustible material and air to a temperature above 280° F. and introducing it into a reaction zone heated to above 280° F. but below that at which self-sustaining oxidation is conducted.

56220. Sterling Drug Inc. Process and apparatus for regulating liquid phase autogenetic oxidation of combustible materials. By mixing an aqueous

dispersion of combustible material with an oxygenating gas and introducing it into a reaction zone.

56221. Klockner-Humboldt-Deutz A. G. and F. J. Collin Aktiengesellschaft. Process for heating fine granular fuels. (October 14, 1955.) Heating fuels of low water content in plurality of centrifugal separators connected in series and traversed by hot gas in succession.

56222. Ciba Limited. Manufacture of new aza-compounds. A 1-aza-2, 4, 9-trimethyl-thioxanthone containing a residue known to be convertible into a (tertiary amino)-alkyl amino group is converted by known method into the said group.

JANUARY 4.

56223. Void.

56224. Void.

56225. Universal Oil Products Company. Improvements in or relating to the manufacture of gasoline. Producing high octane rating gasoline by a combined reforming stage and an extraction stage.

56226. Universal Oil Products Company. Improvements in or relating to the catalytic conversion of hydrocarbons. Subjecting a gasoline of low content of aromatic hydrocarbon to a combined solvent extraction and catalytic reformation step.

56227. Universal Oil Products Company. Improvements in or relating to reforming gasoline hydrocarbons. Subjecting a gasoline fraction containing naphthenes and paraffins successively into two reforming zones.

56228. National Cylinder Gas Company. Method of extracting sugar bearing juice from sugarcane. Moving suspension of cane pieces in sugar juice in counter-current to heated water in diffusion tower.

56229. The M-O Valve Company Limited. Improvements in or relating to magnetrons. (Addition to No. 52097.) Anode supporting structure has the form of a metal block recessed from each end face to form a central partition with end spaces.

56230. Metropolitan-Vickers Electrical Company Limited. Overheat Electrical Protection Device. (January 12, 1955.) Including means for producing pulses proportional to heat produced in electrical equipment means producing pulses proportional to that part of the heat produced which is dissipated by cooling, and means operable in accordance with the difference between the heat produced and dissipated to disconnect the equipment from a current source or remove the load therefrom on the difference reaching a particular value.

56231. Void.

56232. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to systems for the radiographic transmission of telegrams. Including a first station and a second station, the second station comprising a device for testing the incoming signals sent by the first station and sending a warning signal to the first station in case of distortion of the incoming signals.

56233. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to methods of producing an isomerisation product of vitamin D or an ester thereof. Adding catalyst to vitamin D solution converting isomerized product into crystallisable ester and reducing the product to dihydrotachysterol.

56234. I. Matsuda. An automatic rotatory type machine for making rubber-soled shoes or boots. Comprising intermittently-rotating circular rotary base, an operating table set tangential to rotary base and two conveyors, one set on right and other on left side of the table, rotary base equipped with compressor units actuated by vertical pistons and with horizontal pistons each corresponding to respective compressor unit arranged to bring about outward and inward motion of female shoe or boot mould, the heating of which is stopped or commenced automatically.

JANUARY 5.

56235. Void.

56236. Ruhrchemie Aktiengesellschaft and Lurgi Gesellschaft für Warmetechnik m.b.H. Process for the hydrogenation of carbon monoxide. Relates to a process of hydrogenation of carbon monoxide, using cobalt, nickel or iron catalysts in precipitated form wherein the catalyst mass is extracted with hydrocarbon liquids.

56237. Signode Steel Strapping Company. Seal blank. Each blank having a back plate to which is joined a pair of flanges, the flanged faces being formed with complementary engageable retaining means.

56238. E. S. Dunn. Improvements in or relating to fluid tight seal and rotor bearing mount for submersible motors. End pieces closing space between tubular motor housing and tubular lining of housing bore, resilient and metal rings adapted to be received within peripheral recess on end pieces to make water tight seal.

56239. H. B. Rai Chowdhury. Improvements in or relating to the process of carbonising vegetable matters and apparatus for the same. Comprising an inclined chute leading into a charring chamber, a conveyor within the chamber, a deposit chamber at the discharge end of the conveyor, a flue pipe leading into the charring chamber, and a shoot chamber communicating with the charring chamber.

56240. The Chemical Industrial and Pharmaceutical Laboratories Limited. Preparation of extract from mammalian heart. Separating heat sensitive fraction by extraction in water at 50° C., proteolysing yellow residue and filtering to obtain non-heat sensitive fraction and mixing the two.

56241. Feed Service Corporation. Feed for ruminants. (June 14, 1955.) Containing a source of synthetic nitrogen and ethanol in an amount effective to increase the nitrogen retention ability of ruminants, ethanol being from about 1 to 12 parts by weight per 10 parts by weight of source of synthetic nitrogen.

56242. L. W. A. Limited. Method of pelletizing air-entrained clay. (January 12, 1955.) Sucking into peripheral cylinders of rotary drum and ejecting clay onto conveyor surface by pistons.

56243. Daimler-Benz Aktiengesellschaft. Improvements relating to steering of motor vehicle. (November 21, 1955.) Auxiliary steering force regulated in proportion to the reaction forces which act on steering box.

56244. Daimler-Benz Aktiengesellschaft. Improvements relating to motor vehicle steering arrangements. (November 23, 1955.) With means provided for sensing the steering force at a point in the steering device where it is proportional to the force or manual power applied to the steering wheel.

JANUARY 6.

56245. The British Tabulating Machine Company Limited. Improvements in or relating to electronic switching circuits employing multi-cathode gas-filled tubes. (April 7, 1955.) Comprises a multi-cathode gas-filled counting tube, means for operation under joint control of input pulses.

56246. Bundy Tubing Company. Method and apparatus for making tube. Fashioning a moving strip of metal into tubular form, bringing portions of strip into interfacial relationship so that inter-facing portions intersect the outer periphery of tube are located on the underside of the tube, subjecting the underside of the tube to an application of molten sealing metal.

56247. M. Schmidt. Process for the filling and sealing of liquid containers, especially of plastic ampoules for ink. Depositing ampoules in receiving container over transport belt as it moves to filling, sealing and ejector devices therefor.

56248. A. Sauer, and F. Kriz. Improvements relating to an injection moulding machine. Comprises multiple points on injection.

56249. Societe d'Applications Generales d'Electricite et de Mecanique. Improvements in apparatus for detecting critical values of feed-rate of yarn or the like material. The braking effort is applied to a member whose motion is caused solely by adhesion of the yarn thereon without slip.

56250. Mannesmann Aktiengesellschaft. Improvements in or relating to hydraulic presses. Consisting of an outer cylinder, an inner cylinder, an annular piston, a hollow piston rod and means for coupling a rod shaped element to the piston rod.

JANUARY 7.

56251. Council of Scientific and Industrial Research. A curing agent for raw hides and skins. Comprises a mixture of sodium sulphate, magnesium sulphate and ammonium sulphate.

56252. D. N. M. Rajagopalan. Processed writing slates. Consists of a glass sheet painted black on one surface and grounded on the outer surface.

56253. P. P. Mathur, V. P. Mathur and J. P. Mathur. Improvements in or relating to mercury switches. In which mercury and contacting ends of electrodes are in inert atmosphere or in vacuum, and electrodes contacting mercury are sharp edged to cut through non-conducting film enveloping the mercury.

56254. Void.

JANUARY 9.

56255. Dunlop Rubber Company Limited. Improvements in or relating to belting. Segments stepped at opposite ends and having series of tongues and tensile reinforcement embedded therein to form belt by end to end fitting.

56256. Void.

56257. Siemens & Halske Aktiengesellschaft. Electrically controlled railway signal installation. Electrical drive is controlled by an electrical setting mechanism provided with electrical locking mechanism.

56258. Void.

56259. Power Fumigants Limited & F. E. Templeman. Improvements in or relating to fumigating means. (January 10, 1955.) Comprises of a combination hurricane lamp and fumigating means wherein a fumigator container is mounted in the flue opening of the lamp.

56260. N. V. Onderzoekingsinstituut Research. A process for the manufacture of viscose rayon threads and fibres. [Addition to No. 54179.] Characterised in carrying out spinning process in presence of one or more surface active substance.

56261. P. M. G. De Teramala. Improvements in mechanically propelled or mechanically driven apparatus. (March 1, 1955.) Comprises a prime mover, a hydro-kinetic torque convertor and a reduction gear of ratios between 1:2:1 and 2.22:1.

56262. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Process for the manufacture of piperidine derivatives. Condensing α -alkyl-acrylate with methylamine, condensing the product with an acrylate, subjecting the tertiary-amine obtained to ring closure, saponifying, decarboxylating, treating the product in known manner to obtain 1-methyl-3-alkyl-4-phenyl-4-hydroxy-piperidine and acylating the latter compound.

56263. D. N. Chaudhuri. Improvements in or relating to toys. A tube in the form of coil uncoils itself on inflation of it so as to lift the toy.

56264. D. N. Chaudhuri. Improvements in or relating to solid toys. A frame or skeleton is bent into desired shape and sponge rubber is moulded around the shape.

56265. B. Banerjee. Improvements in or relating to garments. Consisting of a round piece of cloth formed by stitching the two vertical ends, a slit being made along a vertical axis is at a short distance from the upper horizontal edge.

56266. Void.

JANUARY 10.

56267. Void.

56268. Verwaltungsgesellschaft der Werkzeugmaschinenfabrik Oerlikon. Copying device for machine tools. At the end of one guide surfaces the feeler body is displaced by an auxiliary force biasing in control direction.

56269. Verwaltungsgesellschaft der Werkzeugmaschinenfabrik Oerlikon. Machine tool with a carriage carrying a feeler. Comprises a templet carrier, pivotally mounted on a first fixed support and having a second support, slidable transversely of direction of carriage movement.

56270. Verwaltungsgesellschaft der Werkzeugmaschinenfabrik Oerlikon. Block-shaped tool carriers having exchangeable tool holders. Has exchangeable tool holders having two V-grooves, one of which engages with a prism on one side of a clamping point, and a basic face abutting on the side face of the tool carriers on the other side.

56271. Verwaltungsgesellschaft der Werkzeugmaschinenfabrik Oerlikon. Feeder gear box for turner's lathes. Comprises shiftable gear wheels, each of which engages alternatively two gear wheels of substantially equal diameter but of different number of teeth.

56272. Motha Treuinstitut. Improvements in or relating to contactor devices for a projectile with electric ignition. Consisting of a deformable calotte, adapted to come into contact with a conducting part located inside the said calotte.

56273. Egen Electric Limited. Improvements in or relating to adjustable electric components having concentric shafts. (January 20, 1955.) Comprises means engaging the shafts which transfers to the outer shafts any longitudinal thrust on the inner shaft.

56274. Void.

56275. Energy Limited. Improvements in and relating to heat engines operating on the stirling or ericsson heat cycles. Wherein the working medium is dehydrated carbon dioxide with or without admixture of one or more of the inert gases in dehydrated form.

JANUARY 11.

56276. United Kingdom Atomic Energy Authority. Recovery of thorium from monazite. (January 13, 1955.) By digesting the monazite with sulphuric acid to a pasty mass, adding the same to water and filtering it.

56277. British Insulated Callender's Cables Limited. An improved method of shaping vulcanisable rubber compounds by extrusion. (January 24, 1955.) Preparing elongated strips from two batches containing vulcanising agents working in conjunction with each other and feeding in extruder.

56278. Void.

56279. Organon Laboratories Limited. Production of androstene-3 β -17 β -diol esters. (January 12, 1955.) Dehydro-epi-androsterone esters are treated in suspension with a borohydride of an alkali, or alkaline-earth metal and the desired epi-androsterone-ester is separated.

56280. Void.

56281. K. H. N. Schulpen. A device for cutting, sawing or similarly subdividing of material. Comprises at least two movable means of which at least one is a cutting means and arranged to form one cut.

56282. Thermos (1925) Limited. Improvements in or relating to vacuum flasks. (January 18, 1955.) Having a ring sealed to neck of the flask and providing pouring lip, a closure of resilient material and comprising hollow stopper portion for insertion into neck of the flask and a flange extending outwardly from the stopper to overlie the end of the neck, the flange being engageable with and disengageable from said ring by snap action.

56283. Void.

56284. Void.

56285. P. Dhanji. Improvements in or relating to table tennis bats. Providing between bat core and rough surfaced material a layer of soft material like sponge rubber.

JANUARY 12.

56286. Farbenfabriken Bayer Aktiengesellschaft. Water-insoluble azo dye-stuffs. Coupling diazo compound with coupling compound of phenylamine series.

56287. The Mining Engineering Company Limited. New or improved ducting for conveying air or other gases. (January 21, 1955.) Wherein a length of ducting is formed by part-cylindrical sheet metal members with clamping means for sealed joints between longitudinal edges and also sealed joints between the ends of adjacent lengths.

56288. Dr. K. Ziegler. Improvements in the production of high molecular weight polyethylenes. (December 21, 1955.) [Addition to No. 53153.] Wherein aluminium, zinc, magnesium or alkali metal triaryl, triaralkyls; triaralkyl aryls or mixed alkyls and aryls are used in place of or addition to aluminium trialkyls.

56289. The Firestone Tire & Rubber Company. Improvements in or relating to apparatus and method for vulcanizing pneumatic tires. Consists in an apparatus for vulcanizing comprising pair of mold sections, means to bring them against the beads and a pair of circular plates with means to urge these plates against molds.

56290. The Firestone Tire & Rubber Company. Improvements in or relating to resilient pneumatic bellows and automobile suspension. Comprises a frame, means to journal a wheel pivoted to the frame and pneumatic bellows, consisting of a single convolution body of flexible material, anchored to a pair of beads.

56291. Rohm & Hass Company. Improvements in pesticidal compositions. [Divided out of No. 53991; ante-dated to March 10, 1955.] 1:1-bis (halo-phenyl)-2:2:2-trichloroethanols dispersed in an inert organic solvent together with a solvent-soluble emulsifying agent.

56292. Buderus'sche Eisenwerke and The Stanton Ironworks Company Limited. Plant for centrifugal casing of material in moulds or hollow bodies. (March 28, 1955.) Comprising separate stations for the three operations and moulds are transferred from station to station by transfer rollers on movable axes.

56293. Brown, Boveri & Company Limited. Method and device for coating a metal wire with magnetic powder for use as an arc welding electrode. Wire carrying the welding current passes into magnetic powder which is subjected to a mechanical thrust.

56294. UCLAF. New derivatives of N-deacetyl-alkylthiocolchiceines and process for their production. (July 6, 1955.) A saccharide and a tropolonic derivative are heated in a solvent at 50—100° C., and the N-heteroside is separated.

JANUARY 13.

56295. Heinrich Koppers Gesellschaft mit beschränkter Haftung. Process for the production of 'Gasol' olefines, more especially ethylene. Heating of the solid heat carriers is effected by direct and continuous introduction of flue gases obtained by burning a fuel.

56296. British Insulated Callender's Cables Limited. Improvements in the manufacture of electric cables. (January 27, 1955.) Dielectric comprises laminated body of insulated strips permeated by a gel.

56297. The British Tabulating Machine Company Limited. Improvements in or relating to electronic counting apparatus employing multi-cathode counting tubes. (April 7, 1955.) Having means for preventing maintenance of an

anode-cathode glow discharge in more than one of the tubes at a time driving means to step the glow discharge and means operable when the discharge is on a predetermined cathode of one tube, to initiate a discharge to a predetermined cathode of another tube.

56298. Grain Storage (London) Limited. Improvements in or relating to members for forming collapsible storage bins for granular material and the method of forming collapsible storage bins therefrom. (January 13, 1955.) Comprising a rectangular member of flexible material having means for releasable securing of each and to the other end so as to form a cylindrical frame which is self-supporting.

56299. Klockner-Humboldt-Deutz Aktiengesellschaft. A device for heating fine granular solid material. (December 13, 1955.) Characterised in that if viewed in the longitudinal direction of the kiln, the waste gas conduit and the powder discharge pipe of the last separator open into the kiln at an angle to the vertical longitudinal plane.

56300. Newton, Chambers & Company Limited. Apparatus for dispensing pastes and other fluent substances. (August 12, 1955.) The amount of substance delivered is variable by rotatably adjusting the piston.

56301. English Steel Corporation Limited. Improvements in or relating to automatic car couplers. (February 8, 1955.) Deflecting wing extends outwardly from the buffing flange of the housing.

56302. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to a method of raising the wettability of solid substances not soluble in water. The finely divided substance is brought into contact with an aqueous solution of surface active agent so that the agent adheres to the substance and the excess quantity of the agent is removed by separating out its aqueous solution.

56303. Creed & Company Limited. Automatic gain control system for use in a facsimile recorder. (January 28, 1955.) Provided with means for utilising phasing pulses to establish a desired signal level at the recorded.

56304. Slazengers Limited. Improvements in or relating to the manufacture of tennis balls. (July 29, 1955.) [Addition to No. 54370.] Having a resilient core covered with a pile fabric wherein the pile fibers are made of unshrinkable synthetic organic thermoplastic material where as the base weave is of shrinkable natural fibers.

JANUARY 14.

56305. Dr. K. Ziegler. Process for purifying polyolefines. (December 21, 1955.) Polyolefine is washed with a purifying agent consisting of anhydrous alcohol.

56306. American Chemical Paint Company. Method and material for phosphate-coating ferriferous metal surfaces. (November 14, 1955.) Applying to the ferrous material an aqueous nitrate-accelerated zinc phosphatizing solution containing calcium the quantity of zinc being from 0.3 to 1.5 mol. for each mol. of calcium.

56307. Societe Des Usines Chmiques Rhone-Poulenc. New process for the preparation of 2-methyl 1:3-cyclopentane-dione. (December 13, 1955.) Reacting 3-methylcyclopentane-1:2:4-trione with $R.NH-NH_2$ (R being hydrogen, $CONH_2$ or $CSNH_2$) and decomposing the product by heating in caustic alkali solution.

56308. The Angus Company Limited. Improvements in or relating to sliver roll forming machines. Having a sliding carriage mounting an arbor for supporting a hollow roll center on which the roll is formed.

56309. E. R. Colombowalla. Improvements in or relating to electrically driven ventilating fans. Vanes connected by common tie bar, one vane pivoted to one end of main actuating lever to which connected other components of fan and other end of lever riding in channel in ring disc mounted on supporting base and a pair of stops in the channel, whereby the end of lever when it strikes one stop, its movement is arrested, the pivotable connection causing vanes to

be deflected to present their opposite faces to air stream and hence fan unit start moving in opposite direction.

56310. Council of Scientific and Industrial Research. Device for testing the horse-power, pulling capacity and/or endurance of animals or moving bodies. Comprises a friction brake dynamometer in combination with a rotary shaft responsive to linear motion of animals.

JANUARY 16.

56311. The Goodyear Tire & Rubber Company. Improvements in preparation of flexible elastomeric cellular material. Reacting a polymeric material with a di-isocyanate.

56312. The Goodyear Tire & Rubber Company. Improvements in flanged hose and coupling. The coupling includes a rigid member bonded to a flanged terminus of the elastomeric conduit.

56313. The Goodyear Tire & Rubber Company. Improvements in re-processing flexible cellular materials. Dissolving flexible cellular material in polymeric material and adding water and polyisocyanate to the liquid.

56314. N. V. De Bataafsche Petroleum Maatschappij. Process for the catalytic cracking of hydrocarbon oils. During cracking the oil is contacted with an active cracking catalyst in admixture with a silica gel.

56315. Societe Des Usines Chimiques Rhone-Poulenc. Improvements in or relating to the production of ethylene derivatives. (February 11, 1955.) Halogen and dichloroethylene of the formula Ar-B-S-CCl-CHCl (B=single bond or aliphatic group) are interacted, the product is dehydrohalogenated and further oxidised if sulphoxide or sulphone is desired.

56316. Resource Use Limited. Process for the production of a hydraulic binding material by dry-grinding granulated blast furnace slag to a very fine state. Comprising draining the slag, crashing it and subjecting the same to high velocity gas jet means to throw the slag particles violently against one another.

56317. Montecatini Societa Generale Per L'Industria Mineraria E Chimica. Process and apparatus for the production, without catalyst of synthesis gas from concentrated gaseous aliphatic hydrocarbons and oxygen including hydrocarbon mixtures obtained by vaporization of certain petroleum fractions or by partial vaporization of crude oil under heating. The intensive mixing of the two gases is obtained by mutual impact of the two gas streams with effective compounds of their Kinetic energies substantially equal to each other and the process and production is carried out without a catalyst.

56318. E. V. Berry. A method and device for forming through cylindrical surfaces. Comprises steps of attaching a deformable member to rotating means with part to be formed co-axially and positioning a fluid pressure operated movable support.

56319. Void.

56320. Void.

56321. Void.

JANUARY 17.

56322. Council of Scientific and Industrial Research. An improved process for the manufacture of vinyl chloride from ethylene dichloride. Effecting dehydrochlorination of ethylene dichloride in presence of acticated bauxite.

56323. Mrs. Johanna Zakarias and Dr. L. Zakarias. Process for treating permeable bodies with luminescent materials. (January 22, 1955.) Comprising at least 1 per cent. luminescent material and the hydrophilic protective colloid, both the materials in such physical state that the luminescent material can be dispersed into said colloid by dispersing means and then the luminescent material will be dispersed and adsorbed in said colloid.

56324. G. Klay. Method for preparing a preserved product which is suitable for human consumption from protein containing material of animal origin. Sterilization of protein is carried out followed by addition of salt and fermentation.

56325. Ciba Limited. Manufacture of esters. A carboxylic acid is reacted with a phosphorous acid ester which contains as alcohol component at least one aryl residue.

56326. General Railway Signal Company. Improvements in or relating to electronic code-communication systems. Means at the transmitting end for transmitting repeatedly groups of pulse periods and counting means at the receiving station.

56327. A. Gardella and C. Gardella. Improvements in and relating to thread guide assemblies for centrifugal can spinning frames. Comprising a tubular thread guide shaped to project at its outlet end into a can and means for imparting a relative reciprocating movement between the thread guide and the can.

56328. The Goodyear Tire & Rubber Company. Improvements in conveyor belt. Comprises load-carrying and pulley-contacting sides tension section of reinforcing material and at least a breaker layer between latter two sections.

56329. Dorr-Oliver Incorporated. Method of and multi-tray clarifier for clarifying liquids containing suspended solids. (March 15, 1955.) Means are provided for adjusting the quantity and velocity of incoming feed liquid to be substantially equal in all compartments of the tank.

56330. J. R. Geigy A.-G. Process for the production of organically soluble stilbyl triazole compounds. [Divided out of No. 52896; ante-dated to October 13, 1954.] Coupling a diazotised 4-amino stilbene compound containing a SO_2R radical in ortho or para-positions to the ethylene bridge, with an azo component and then oxidising the o-aminoazo dyestuff to 1:2:3-triazole compound.

56331. R. C. Ford. Improvements in rotary pumps. Flexible wall of the fluid passage way is provided with a track member.

56332. W. E. Benson and G. E. Benson. Improvements in Machines for the formation of wheel rims and the like. (January 24, 1955.) Comprising blank engaging rolls with means for moving them outwards, the rolls being spaced apart about the axis of relative rotation so as to minimise side thrust on the formation roll means.

56332. Verwaltungsgesellschaft der Werkzeugmaschinenfabrik Oerlikon. Back centre socket for drills. Having tangs, in which drills can be inserted into the same collect as a dead centre.

JANUARY 18.

56334. S. K. Ghose. An apparatus for direct measurement, checking and laying out of railway curves and gradients. A frame for holding slides carrying preprojected and precalculated graduated curves and lines and a viewer.

56335. The Dow Chemical Company. Device and method for forming and shaping a plastic foam sheet. Comprises a pair of parallel shaping members positioned to receive extruded material from orifice of pressure resistant chamber in its slot like passageway.

56336. American Cynamid Company. Pretreatment of aqueous nutrient containing fermentation media to improve the yield of tetracycline therefrom. Contacting an aqueous nutrient medium with an ion exchange material.

56337. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to electrode holders used for filling a seam with weld-metal, which seam is enclosed by means of at least one auxiliary member. Clamps are made narrow so that they can be introduced into the seam, one jaw being of insulating material.

56338. Cable Covers Limited. Improvements relating to couplings, connectors and anchor grips for cables, wire and the like. (January 19, 1955.) Comprises a sleeve having a bore parallel and tapered a pair of internally serrated wedge.

56339. N. V. Onderzoekingsinstituut Research. A method and a device for heating continuously moving threads, and the like. Providing a heated tubular member having an inner diameter less than 0.8 mm.

56340. D. N. Chaudhuri. Improvements in or relating to balls. Provided with holes or apertures.

56341. Void.

56342. Digvijay Industries. Improved cot. Each of the four members of the frame is split into two lengths which are connected to each other by a toggle joint.

JANUARY 19.

56343. Void.

56344. Void.

56345. Void.

56346. The Indian Oxygen & Acetylene Company Private Limited. Improvements in or relating to electric arc welding. (February 22, 1955.) Arc is shielded by a gas shroud comprising carbon dioxide in admixture with oxygen in an amount of up to 10 per cent. by volume of the total gas.

56347. Oldham & Son Limited. Improvements in or relating to portable electric battery lamps. (January 20, 1955.) Comprises a body formed as a single moulding with a reflector shape having a light reflecting surface.

56348. Fairbairn Lawson Combe Barbour Limited. Improvements in hard fibre spinning machines. (January 20, 1955.) Providing with a first and second twisting device both acting on a single sliver.

56349. H. R. McLaughlin. Improvements in or relating to flat bed platen printing presses. Horizontally disposed paper supporting platen mounted for horizontal reciprocation and located in juxtaposition to a flat bed above on which type is mounted.

JANUARY 20.

56350. Dr. V. K. Havanto. Method of treating bones. Molecular oxygen is removed from the pressure chamber before treating with super atmospheric steam.

56351. J. Blum. Cleaning apparatus for floors, windowpanes and the like. [Addition to No. 53364.] The tubular handle is provided with a lever which is secured at one end on the mounting of the cleaning member and at the other end to a two-armed handle.

56352. Bristol Aero-Engines Limited. Improvements in or relating to rotors for axial flow compressors and turbines. Spigot connected one blade carrying disc at one end of drum structure further connected to spigot-like part, projecting axially into drum and connected at other end to another blade carrying disc at radial distance not greater than that at which spigot and spigot-like part are connected.

56353. Bristol Aero-Engines Limited. Improvements in or relating to gas turbine engines. Consist of means for communicating intermediate pressure zone in compressor to low pressure zone in engine device stream of nozzles up to a predetermined speed of the compressor.

56354. The Angus Company Limited. Improvements in or relating to machines for preparing jute and like fibres for spinning. Having a faller bar field between a retaining roller at the rear of the machine and a drawing roller at the front.

56355. Dunlop Rubber Company Limited. Apparatus for the manufacture of pneumatic tyres. (February 1, 1955.) Comprises a former, means for rotating the former and reciprocating a thread guide transversely over former surface at a predetermined speed.

56356. G. Johnson. Improvements in deflector plates for carding engines. Deflector plate with longitudinal slot or slots for the extraction of trash from lap.

56357. Badische Anilin & Soda-Fabrik Aktiengesellschaft. Improvements in catalytic pressure refining of hydrocarbons of low boiling point. (January 21, 1955.) Conducting the refining with 0.2 to 2.5 cubic metres of a hydrogen containing carbon monoxide at a hydrogen-partial pressure of 10 to 60 atmospheres, a throughput of 0.3 to 2.5 kilograms of crude product per litre of catalyst volume per hour.

56358. The Carborundum Company. Waterproof sandpaper and method of making the same. Comprising a waterproof paper backing, a film of a synthetic elastomer on one surface of the backing, a coating of abrasive grains attached to the said film, and a second film on the opposite of said backing.

56359. Void.

56360. Void.

56361. Void.

JANUARY 24.

56362. Void.

56363. Cilag Limited. Process for the production of sulphaguanidine-formaldehyde condensation products and products produced thereby. (February 21, 1955.) Condensing sulphaguanidine and formaldehyde.

56364. Organico. Improvements in or relating to the pyrolysis of ricinoleic compounds. Subjecting ricinoleic acid or its ester to pyrolysis condition in admixture with water vapour at a temperature between 500° and 700° C.

56365. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Thin flexible self-sustaining unsupported polyethylene film and method of making the same. Melt-extruding the film forming polyethylene through an annular orifice and blowing said tube while in the plastic condition.

56366. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Method of packaging. Bag of thermoplastic film containing item is suddenly subjected to temperature more than 100° C. but less than its melting point.

56367. Eli Lilly and Company. Method of producing an antibiotic agent of the group consisting of vancomycin and its acid addition salts, and such antibiotic agent, and acid addition salts, thus produced. A strain of streptomyces orientalis is cultivated in a culture medium.

56368. Chas. Pfizer & Co. Inc. Steroid compounds and the preparation thereof. [Addition to No. 54518.] By contacting Δ^1 -pregnene-11 β , 14 α , 17 α , 21-tetrol-3,20 dione with the oxidizing activity of an organism of the genus Mycobacterium.

56369. The Firestone Tire & Rubber Company. Method and apparatus for assembling elastic sleeve and other sleeve particularly tread and tire body. The tread and side wall portion is spun to expand in the form of a closed cylinder at high speeds and then allowed to spring on the tire body which is introduced in it.

56370. W. M. Weil. Process for the recovery of manganese values from metalliferrous materials. Contracting metalliferrous material with a chloridifying agent containing anhydrous hydrogen chloride at above 800° C. to sublime and remove manganese as chloride.

56371. S. Sen Gupta. Automatic counting and vote registering ballot boxes. The automatic mechanical device is actuated by a down-coming metallic ball.

56372. N. V. Phillips' Gloeilampenfabrieken. Improved method of producing a compound which is capable of increasing the calcium content of the blood. Product obtained by irradiation of 7-dehydrocholesterol with ultra violet light is reduced with alkali metal and alcohol.

56373. Davy and United Engineering Company Limited. Improvements in or relating to coiling strip material. (January 25, 1955.) Comprises a mandrel, a series of wrapper rolls supported on a frame structure around the mandrel to bear peripherally on the coil strip.

56374. Davy and United Engineering Company Limited. Improvements in or relating to collapsible mandrels. (January 25, 1955.) Comprises a number of segments to coil strip on distributed around a rotatable shaft, means for transmitting torque to segments and adjusting segment distance from the shaft axis.

56375. Creed & Company Limited. Facsimile transmitter. Message sheet advanced at a faster rate before and after the scanning operation.

56376. E. Jacobi. Device for sucking off lint on spinning machines. Comprising suction pipes arranged parallel to the drawing roll and secured to the draft gear frame having a snap catch.

56377. Ciba Limited. Process for the manufacture of organic acid chlorides and derivatives thereof. An organic acid is reacted with thionyl chloride in the presence of a formic acid amide.

56378. "Rade Koncar" Tvornica Električnih Strojeva. Improvements in stators for electrical machines. [Divided out of No. 52345; Ante-dated to July 16, 1954.] Angularly displaced packets of square stator plates with axial grooves receiving bars or ribs to which pressure rings and flange rings are welded.

JANUARY 25.

56379. N. V. De Bataafsche Petroleum Maatschappij. Apparatus for pneumatically raising granular or powdery material. Cylindrical supply line for transport gas leads into cylindrical riser and between riser and supply line one or more annular slots are formed, which slots may or may not be locally interrupted and are in communication with a feed chamber in which material to be raised can be kept in a fluidized state by supplying auxiliary gas.

56380. N. V. De Bataafsche Petroleum Maatschappij. A process for preparing a hydrocarbon oil which is freed or practically freed from mercaptans. Treating mercaptan-containing hydrocarbon oil in presence of oxygen with an aqueous alkali metal hydroxide solution in an apparatus which ensures an intimate contact between two liquid phases, which comprises using propeller mixer.

56381. Polycell Products Limited. An improved plaster composition. Comprising a mixture in powder form of a water soluble cellulose and lime of gypsum plaster.

56382. British Cotton Industry Research Association, The. Improvements in or relating to opening blending and lap-forming machines for use in the textile industry. Providing a beater compartment in the machine with a closed periphery segments of which being provided with spikes for opening the fibrous material.

56383. Void.

56384. Le Matériel De Traction Electrique. Bogie for railway rolling stock. Chassis resiliently suspended on lateral balance beams and constituting with the axles a deformable quadrilateral, the link between the quadrilateral and the chassis being established by longitudinal ties.

56385. Le Matériel De Traction Electrique. Improvements in railway rolling stock having axles individually driven from a motor fixed in the chassis. Lateral tie between the axles and motor is effected exclusively by the mechanisms effecting drive to the axle.

56386. Societe D'Appareils De Controle Et D'Equipement Des Moteurs S.A.C.E.M. Societe Anonyme. Improvements in frames for bicycles, in particular for bicycles having an auxiliary engine. Comprises an assembly of a tube of 40 mm. dia. with a head tube at its front end and sloping downwardly so as to end above a bottom bracket shell, and of a triangular unit of horizontal fork, oblique rods and a seat pillar element.

56387. Societe D'Appareils De Controle Et D'Equipement Des Moteurs S.A.C.E.M. Societe Anonyme. Improvements in frames for bicycles, in particular for bicycles having an auxiliary engine. Comprises a horizontal fork the arm of which on the same side as the chain is located partly above the chain and has side and upper flanges to act as a chain protector.

56388. Cuckson Textiles Proprietary Limited. Improvements in shuttleless looms. (February 7, 1955.) Having a hooked knitting needle mounted to one side of the fabric being woven, means for reciprocating the needle means for opening and closing the needle eye, a supply of weft on the far side and means for moving a weft thread the needle hook.

56389. Maschinenfabrik Buckau R. Wolf Aktiengesellschaft. A process and apparatus for the lixiviation of solid material. By conveying the material from the feed end to a discharge end in a trough and passing a lixiviating liquid in counter current direction thereto.

56390. Magnethermic Corporation. Electrical induction heating systems. Inductor which is a continuous succession of convolutions surrounding heating compartment, fed by 3 single phase electric current of low frequency so that current of different phase flows through each of at least 3 groups of convolutions, the currents in 3 groups being so directed that magneto-motive force set up by the intermediate of 3 groups differs in phase from that by the other groups by angle of not more than 60°.

JANUARY 27.

56391. Council of Scientific and Industrial Research. A process for the preparation of civetone dicarboxylic acid (8-keto-pentadecane-1:15-dicarboxylic acid). 18-Keto-9, 10, 26, 27-tetrahydroxypenta triacontane is oxidised with an oxidizing agent.

56392. N. V. De Bataafsche Petroleum Maatschappij. Process for the hydrogenation of aromatic hydrocarbons and for the preparation of a catalyst therefor. A carrier of alumina is impregnated with Nickel and Molybdenum, and calcined and then sulphidized to obtain a catalyst for hydrogenation.

56393. Pharma-Craft Corporation. Stable anti-perspirant stick and process for the preparation thereof. Having sodium zirconium lactate in soap gel base of sodium stearate-propylene glycol or sodium stearate-aqueous alcohol.

56394. Societe Des Forges Et Ateliers Du Creusot (Societe Anonyme). Detector of liquid pressure having manometric tappings. A casing in which a flexible membrane divides it into two chambers of variable volume, communicating with those parts of the liquid the pressure difference of which have to be controlled and the membrane coupled to control member and co-operating with abutments preventing the membrane from contacting the inner wall faces.

56395. Libbey-Owens-Ford Glass Company. Method and apparatus for bending glass sheets or plates. Heating sheet to bending temperature, bending to predetermined curvature, inverting and further bending on shaping surface of final curvature.

56396. Void.

56397. Stahlwerke Bochum Aktiengesellschaft. Means for measuring effective and reactive components of frequency of A.C. Power supply alternating voltages and currents. Including vibrator rectifiers arranged in a bridge circuit and employing one of the electrical quantities to be measured to control movement of the rectifier contacts.

56398. Trifax N. V. Chemisch-Pharmaceutische & Extractiebedrijven. Process and apparatus for the manufacture of seamless filled capsules. Extruding composite liquid jet with core of filler material and jacket of encapsulating material to form drops and cooling thereof.

JANUARY 28.

56399. Void.

56400. Void.

56401. L. F. A. Knottnerus. Runway-light with light sources beneath the plane of runway. One or more light sources whose light emits obliquely upwards through a grid like body with grid-rods in the plane of the runway, connected with one or more strips of sheet material situated outside the light path and bearing in the concrete layer of runway or foundation.

56402. Indian Oxygen & Acetylene Company Private Limited, The. Electrodes or filler wires for use in coating metals with an alloy by means of a gas shielded electric arc. (February 8, 1955.) Including a ductile component of the alloy (which will be applied as coating) in the form of a continuous element acting as a support for the other component or components in the form of powder.

56403. Styrene Products Limited. Improvements in and relating to adhesive compositions, and polymeric products for use therein. (February 25, 1955.) Polymerising of vinyl pyridine and a polymerisable organic compound containing an ethylene double bond, in emulsion in a latex of rubber polymer.

56404. J. R. Geigy A.-G. Process for the production of lakes. Coupling a diazotised aminobenzene sulphonic acid with an O-hydroxy naphthoic acid arylamide.

56405. Void.

JANUARY 30.

56406. Automatic Telephone and Electric Company Limited. Improvements in electrical coil assemblies. (February 8, 1955.) Including a metal core having cheeks of or faced with insulated material and a winding or a plurality of windings of insulated wire.

56407. N. V. De Bataafsche Petroleum Maatschappij. Apparatus for effecting a rapid change in temperature of a gaseous fluid or a fluid passing over into the gaseous form. Wherein the fluid is passed through at least one screen of free falling solid particles of size less than 2 mm. formed from a fluidized mass.

56408. Koninklijke Industriële Maatschappij Voorheen Noury & Van Der Lande N.V. Process for the preparation of polymer basic aluminum salts of organic acids. By reacting basic aluminum salts with dialkoxo aluminum salts.

56409. Chas Pfizer & Co. Inc. Antibiotic and process for preparation thereof. Cultivating streptomyces griseus ATCC 12,318 in a nutrient medium.

56410. Compagnie Francaise Des Matieres Colorantes. Improvements in and relating to aromatic amines sulfonated on their amino groups. Aromatic triaminomono- and di-sulphamic acids are prepared by treating a benzene derivative substituted by an amino group; a nitro or acylamino group; and a nitro, amino or acylamino group and by converting in the resulting product nitro or acylamino group into amino group.

56411. R. J. Nash. Improvements in and relating to shuttlecocks. (February 2, 1955.) Comprising a diaphragm and a plurality of spaced coaxial cylindrical projections extending from one face of diaphragm.

56412. Hardman & Holden Limited. Improvements relating to aluminum alcoholate derivatives. (February 11, 1955.) Aluminium alcoholates are reacted with carboxylic acids.

56413. The Goodyear Tire & Rubber Company. Reinforced rubber articles and method of making reinforced rubber articles, in particular cords in adhesive bonded relationship with rubber. First dipping cord in dilute adhesive

solution, then in adhesive solution containing bond preserving agent and embedding the same in rubber.

56414. The Goodyear Tire & Rubber Company. Improvements in preparation of flexible elastomeric cellular materials. By mixing liquid mixture of polyisocyanate, water and active-hydrogen containing polymeric material under pressure of 0.5-60 pounds above atmospheric pressure.

56415. F. Mayer. Improvements in or relating to a process of producing polymers and more particularly organic polyelectrolytes. Polymerizing a monomer containing quaternary nitrogen atom and introducing hydrophilic group into the polymer.

56416. H. Sernetz. Vibratory working engine comprising vibrating members combined in pairs to form a double mass vibrating system. Where vibrating members are divided into two halves inter connected by links through rubber bearings and said members are interconnected by a torsion member to vibrate in opposite directions.

56417. Agricola Reg. Trust. Improved mattresses, cushions, upholstery, heat and sound, insulating coverings and the like. (February 3, 1955.) Constructed of resilient material and in the absence of a load the material adjacent the intended area of contact with the load is under tension in a direction transversely of the direction of the load, while material remote from said area is under compression in a direction transversely of the direction of the load.

56418. Food Machinery and Chemical Corporation. Insecticidal compositions. Pyrethrins are extracted with a volatile solvent, a synergist is added to the extract and the volatile solvent is removed subsequently.

56419. Fulmer Research Institute Limited. Improvements relating to silicon-aluminium steels. (February 17, 1955.) Forming an aluminium layer over the base surface to be protected, the base being a steel containing 1.5 to 5.0 per cent. silicon, 0-5.0 per cent. aluminium, 0.05 to .35 per cent. carbon and the remainder iron.

56420. E. Ryser and B. Voumard. Improvements in sliding clasp fasteners (May 16, 1955.) Comprises T-headed fastener elements the cross pieces of which are interengaged in the closed position of the fastener.

56421. E. Ryser and B. Voumard. Improvements in or relating to covered slide fasteners. (March 4, 1955.) Has its elements cast directly on to the supporting strips each strip being clamped between the clasp portion of an element and another portion whose surface supports the strip.

56422. Svenska Oljeslageri Aktiebolaget. Method for producing of stable solid water-soluble condensation products between formaldehyde and amido-compounds. Condensation of amido-compounds of carbonic acid or its derivatives with formaldehyde or formaldehyde forming compound.

56423. Sandoz A.G. Stable solutions of relatively pure glycosides having an action on the heart. The pH value of the aqueous solution is regulated to a range of 5.5-6.5 by the addition of a buffer agent.

JANUARY 31.

56424. Imperial Chemical Industries Limited. Process for the manufacture of new bis-biguanides and bis-biguanides so obtained. Bis-dicyandiamide is heated with an amine or salts thereof, or an alkylene diamine or salt thereof is heated with a dicyandiamide.

56425. Imperial Chemical Industries Limited. Improvements in or relating to the treatment of leather. An organopolysiloxane is introduced into leather in the presence of a water-soluble zirconium salt from an aqueous emulsion thereof containing a water-soluble soap and the leather is treated with a solution of a water-soluble aluminium salt.

56426. Felt and Tarrant Manufacturing Company. Improvements in or relating to transducer apparatus. Of the type having a movable carriage on which a transducer head is mounted.

56427. National Research Development Corporation. Improvements in cephalosporin C. (February 2, 1955.) A mixture comprising cephalosporin N

and C is subjected to solvent fractionation or treated by adsorption on anion exchange material followed by elution.

56428. Void.

56429. Godrej Soaps Private Ltd. An improved process for making washing bar soap. Wherein a part of the water in kettle soap is replaced by neutral sodium silicate and the resulting mass converted into washing soap in conventional toilet soap machinery.

56430. Ricardo & Co., Engineers (1927) Limited. A piston or cylinder head construction for an internal combustion engine of the liquid fuel injection type. (February 1, 1955.) Comprises a combustion chamber, with a reentrant corner in the circumferential wall.

* 56431. Maersk Raffindderiet. Process and apparatus for the pyrolytic conversion of heavy oil. Characterized in that reaction and regeneration temperatures are substantially in excess of those heretofore employed and solid refractory materials are made to flow through the reaction and regeneration zones in the form of compact moving bed.

56432. Dorr-Oliver Incorporated. Hydrocarbon rectifier. By dispersing the hydrocarbon through an initial scrubbing zone, and then through a passage to agglomerate the contaminants and then settling in a quiescent settling zone.

56433. Monsanto Chemicals Limited. Improvements relating to herbicidal compositions. Comprises pentachlorophenol, a phenolic coal tar distillate, alkali metal or aliphatic amine salt of aliphatic or alicyclic carboxylic acid and water.

56434. D. N. Chaudhuri. Improvements in or relating to toys. Whistle formed integral with body of the toy of rubber or like material, and out of same material as for the toy during the process of its manufacture.

56435. Backer Electric Company Limited. The General Electric Company Limited, The Hotpoint Electric Appliance Company Limited and Metropolitan-Vickers Electrical Company Limited. Improvement relating to electric hot-plates. (February 9, 1955.) Marginal frame has a depending wall within which the heating element is supported.

56436. A. Gardella and C. Gardella. Improvements in thread cheese-ejecting device for suspended centrifugal spinning cans. An ejector extending under the closed top of each spinning can, a plurality of push stems connected to the ejector and arranged to pass through holes in the spinning can top.

56437. Creed & Company Limited. Improvements in or relating to *fasci-mile* recording apparatus. (May 4, 1955.) Including a recorder means for registering a first incoming pulse means for generating a testing pulse, means for starting the recorder in response to the combination of the testing pulse and a second incoming pulse and means for cancelling the registration of the first incoming pulse.

56438. Standard Telephones and Cables Limited. Improvements in or relating to thermionic cathodes of small dimensions and to electron guns incorporating the same. (June 23, 1955.) [Addition to No. 52367.] Emitting surface is at the end of a projection of active material which is a compressed and sintered mass of mixed powders of metallic nickel and thermionically emissive alkaline earth material in the form of a block which projects from the face of a larger block of sintered metallic powder.

56439. Ciba Limited. Process for the optical brightening of polyesters. The polyesters are treated with a nonquaternary compound containing two five-membered heterorings, each of which consists of two adjacent carbon atoms which are at the same time ring members of a benzene ring, a nitrogen atom attached to one of the mentioned carbon atoms an oxygen or nitrogen atom attached to the other carbon atom and the carbon atoms of two hetero-rings being attached together by way of an ethylene bridge.

56440. Daimler-Benz Aktiengesellschaft. Improvements relating to resilient mountings for auxiliary frames or transverse members carrying road wheel suspensions on vehicles. (December 5, 1955.) Flat resilient cushions disposed between auxiliary frame and super structure with the pair, viewed in end elevation or side elevation, presenting oppositely inclines supporting surfaces.

56441. Daimler-Benz Aktiengesellschaft. Improvements relating to steering mechanism for motor vehicles. (November 28, 1955.) [Addition to No. 53692.] An intermediate lever, rockable about an approximately vertical axis is provided between the steering gear and a steering arm.

56442. Void.

56443. Void.

56444. Void.

56445. Ciba Limited. Manufacture of N-acylamino compounds. Amino-sugars are reacted with six membered monocyclic nitrogen-containing heterocyclic carboxylic acids.

56446. Ciba Limited. Process for the manufacture of aminoketoses. 1-(N,N-bis-arylmethyl-amino)-2-ketose is treated with active hydrogen and if desired the resulting 1-amino-2-ketose is aliphatically acylated.

56447. Ciba Limited. Process for the manufacture of amino-aldehydes. A 1-amino-2-ketone is reacted with NH_3 or anamine, and the resulting 1-imino-compound is hydrolysed.

56448. Belliss & Morcom Limited. Cushion plates for the closure members of grid-type valves. (April 19, 1955.) Of the type comprising a grid-like seating having ports a centrally supported closure member also having ports, a resilient or spring loaded cushion plate, and a guard plate, the closure member and cushion plate being situated between the seating and the guard plate.

56449. Union Joinery and Importing Company Limited. Improvements in shuttering for casting beams, columns, walls and the like *in situ*. Building up a shutter of correct width by assembling edge to edge a series of narrow panels collectively providing the moulding face of the panel.

56450. British Telecommunications Research Limited. Improvements in and relating to phase-modulators. (January 4, 1955.) Including a first impedance Z_1 connected between first and second terminals a second impedance Z_2 connected between the second and a third terminal, a third impedance Z_3 connected between the second and third terminals two like carrier oscillations amplitude modulated in opposite senses applied respectively between first and third terminals and second and third terminals and output circuit connected across Z_3 .

FEBRUARY 1.

56451. United States Steel Corporation. Improvements in continuously curing the resin coating of moving steel strip. Progressively heating strip to a temperature between 500 and 800° F. and quickly cooling thereafter.

56452. Chas. Pfizer & Co. Inc. Amino Esters and the preparation thereof. Reacting alkyl substituted 2-halomethyl tetrahydropyrimidine with an acid.

56453. Textile and Chemical Research Company, Limited. Improvements in or relating to belt materials of the laminated type. (December 20, 1955.) Comprising a plurality of layers of filamentary material laminated together, the character and/or distribution of the filaments being arranged to provide a higher resistance to stretching in the longitudinal than in the transverse direction.

56454. Textile and Chemical Research Company Limited. Improved process for the treatment of twisted artificial fibrous material. (December 20, 1955.) Wherein the material impregnated with an abrasion-reducing material is given a surface coating consisting of an adhesion promoting agent.

56455. The Goodyear Tire & Rubber Company. Improvements in flanged hose and coupling. Conduit of elastomeric material, an elastomeric flange integrally formed at a terminus of tubular structure and a rigid terminal structure including a flange having a surface mating with and bonded to axially facing surface of elastomeric flange, the terminal structure also including an integral sleeve portion extending axially away from elastomeric flange.

56456. Stahlwerke Bochum Aktiengesellschaft. Improvements in or relating to the measurement of the magnetic properties of metal sheets. Yoke formed with side flanges and magnetizing winding arranged on the back of the yoke with ends of winding spaced far from yoke flanges so that magnetic

field near the sheet varies linearly with normal distance from sheet surface and further windings above and below sheet and connected with means for measuring e.m.f. induced therein and thereby the field strength in the sheet.

56457. Massey-Harris-Ferguson (Manufacturing) Limited. Improvements relating to tractor-carried agricultural implements. (February 2, 1955.) Lever mechanism with a ground engaging wheel connected to the control link to transmit reduced corrective movement to the control link.

56458. Friedrich UHDE GmbH. Apparatus for distributing and spraying liquids over circular areas. Comprises a guiding device and a mixing chamber.

56459. E. Lawrence. Improvements in or relating to beds. Wherein two longitudinal edges of mattress supporting sheet are bent downwardly to form angle and free edge to form bead.

FEBRUARY 2.

56460. Void.

56461. "SHELL" Research Limited. Process for the fractional distillation of petroleum hydrocarbon oils. (February 4, 1955.) Introducing a small proportion of a free oxygen-containing gas into various columns of a petroleum hydrocarbon oil continuous multistage distillation process at a region where the temperature lies between 100 and 250° C.

56462. Les Laboratoires Dausse. Process for the production of new basic phenyl carbamates. Reacting tertiary amino halide with alkyl or aralkyl ortho or para hydroxy phenyl carbamate.

56463. Simplex Electric Company Limited. Improvements relating to wall boxes for electric switches. (February 3, 1955.) Of the kind wherein the dolly or operating member protrudes through a cover plate behind which the remaining component of the switch are mounted and which is secured to the wall box.

56464. Unilever Limited. Improvements in or relating to dentifrice compositions. Containing high molecular weight, surface active agent like sodium-lauroyltyrosinate, sodium-oleyltyrosinate or sodium N-ricinoleoyl-tyrosinate.

56465. Unilever Limited. Improvements in or relating to foodstuffs. (February 7, 1955.) [Addition to No. 49994.] A small proportion of an ester of an aliphatic hydroxy carboxylic acid (C_4 - C_{18}) and a mono-, di- or trivalent alcohol (1-5 Carbon atoms) is incorporated in an oleaginous food stuff.

56466. Metropolitan-Vickers Electrical Company Limited. Improvements in and relating to electrical bridge circuits for voltage regulating systems and the like. (February 3, 1955.) In which arms differentially responsive to changes in the input voltages so as to provide the output voltage, comprise respective resistor elements of a semi conductor.

56467. Douglas Fraser & Sons Limited. Improvements in or relating to winding machines for yarn and the like. (February 3, 1955.) The controlling mechanisms for the carriages are arranged in groups of at least two mechanisms each of which groups is covered by a shroud common to that group.

56468. Douglas Fraser & Sons Limited. Improvements in or relating to machines for carding textile fibres. (February 3, 1955.) Providing a gap for access from the rear of the machine the gap being normally closed by a door adapted to be interlocked with the starting mechanism of the machine.

FEBRUARY 3.

56469. The English Electric Company Limited. Improvements relating to dynamo-electric machines. (February 18, 1955.) Cooling medium circulated by means of a blower in heat exchange relation with first cooling means then through ducts within the casing with a second cooling means.

56470. Arthur N. Jackson Limited. Improvements in machines for cropping tubes. Movable and fixed external blades with aperture for the pipe and movable and fixed internal blades in the form of discs inside the pipe.

56471. Metropolitan Water Board. Improvements in or relating to apparatus for removing the surface layers or filter beds or other granular material

over which the apparatus is caused to pass. Comprising a vehicle, one or more scraper elements to scrape off a surface layer and worm means to move the scrapped material into the path of an elevating conveyor.

56472. AB Tudor. Improved method and apparatus for the manufacture of tubes from thermoplastic material. Tapes of thermoplastic material are continuously passed around a mandrel while the longitudinal edges of the tapes are joined.

56473. Dr. H. Heitmuller and Dr. I. Etrich. Chain drawing frame. Comprises chain links of a plurality of adjutantly disposed plates, to allow connecting bolts of a smaller diameter.

56474. D. N. Chaudhuri. Improvements in or relating to stoppers. Consisting of an outer sleeve embracing the outside of bottle neck and integral therewith an inner tubular body engaging inside of the bottle neck, the tubular body being open at its upper end to receive a disc to cover the upper end.

56475. Chemie Grunenthal G.m.b.H. Processes of preparing novel products of the amino-piperidine-2,6-dione series. Heating the compound illustrated in figure 2 of the drawing and obtaining novel products of amino piperidine 2,6-dione.

FEBRUARY 4.

56476. Cognate with application No. 56203.

56477. Gay-Bell Corporation. Improved barrel and barrel head therefor. Comprises a first reinforcing member held about the edge of the barrel by first holding means, presenting first abutments and a second reinforcing member held about the periphery of the head by second holding means representing second abutments.

56478. Gay-Bell Corporation. Apparatus for assembling hogsheads. Comprises a frame, trackson the frame, a carriage movable on the track and stamping devices having driving heads and anvils on opposite planes of the carriage with panels.

FEBRUARY 6.

56479. Void.

56480. P Runchhoddas. Improvements in or relating to spinning wheels. Upper drafting roller comprising metal spindle with ferrules of wood or plastic mounted at ends, rubber sleeves fitted on ferrules and metal sleeve mounted at central portion of spindle holding in place balls placed in grooves on spindle.

56481. Void.

56482. Void.

56483. The Bradford Dyers' Association Limited and Bleachers' Association Limited. Improvements in or relating to the ornamenting of compressively shrinkable sheet materials. (February 10, 1955.) By compressively shrinking the material in contact with a second sheet material so that the buckles formed in the second material are transferred to the first.

56484. G. M. Capdevila. Improvements in or relating to lateral jaws for footwear vulcanizing presses. A jaw carrier part comprising all elements suitable for receiving the pressure of the compression elements and for transmitting the same to the jaw itself.

56485. Ciba Limited. New oxadiazole compounds and process for their manufacture. A para amino aryl carboxylic acid is diazotized and coupled with an aminoaryl compound free from hydroxyl groups and the O-aminoazo grouping is oxidised to triazole ring and the oxadiazole ring is formed by splitting out water.

56486. Ateliers de Constructions Electriques de Charleroi. Fluorescent powders containing P_2O_5 , CaO , CaF_2 , $MnCl_2$, and Sb_2O_3 and fluorescent lamps equipped with such powders. Contains predetermined proportions of phosphoric oxide, calcium oxide, calcium fluoride, divalent manganese chloride and antimony oxide.

56487. Ciba Limited. Process for the optical brightening of materials of polyacrylonitrile or polyvinyl chloride. Treating polyacrylonitrile or polyvinyl chloride materials with a compound free from quarternary ammonium groups and having no dyestuff character.

56488. Farbenfabriken Bayer Aktiengesellschaft. New stilbene compounds suitable for use as brightening agents and the production of these compounds. (February 16, 1955.) 4 amino-4'-nitro (or 4'-acylamino) stilbene-2,2'-disulphonic acid is diazotised, the diazogroup is reduced and the product is condensed with a β -ketobutyraldehyde acetal, the nitro group if present being reduced and substituted by acyl group.

56489. Void.

56490. Canadian Patents and Development Limited. Noxiversin and derivatives thereof and process of preparing the same. By growing the fungus *Penicillium Cyaneofulvum* (Biourge) (McGill Strain) on a culture medium and separating the product therefrom.

56491. S. Hashimoto. Bottle closure. Comprising a crown having flutes in its skirt and a hood having a disc to be adapted inside the crown and a cylindrical portion to be adapted outside the uppermost portion of bottle neck, at least the cylindrical portion to be engaged with the crown having thickness sufficient to be deformed to fill the space between the inside of the skirt of the crown and the outside of the bottle neck.

FEBRUARY 7.

56492. Fisons Pest Control Limited. Improved devices for treating trees. Comprising a cup containing a plant treating substance and means for attachment of the cup to the wood of the plant.

56493. Dorman & Smith Limited. Improvements in and relating to the mounting of circuit breakers in distribution boards. (July 9, 1955.) A slot in the bus-bar, a contact arm in the circuit breaker, and complementary projections in supporting rod and the circuit breaker provides easy mounting of the circuit breakers on distribution boards.

56494. Ciba Limited. New thianaphtheno. [3,2-b]-indoles and a method for producing same. Wherein a radical R_1 x is introduced into 10-H thianaphtheno [3,2-b] indoles or by reacting 3-hydroxy thianaphthenes with N-phenyl-N-(R_2X_3)-hydrazines.

FEBRUARY 8.

56495. Void.

56496. Turco Products, Inc. Improvements in or relating to method of making thin-walled structural panels and resulting product. First forming to a desired contour a metal sheet of a thickness equal to the thickness desired at raised areas, masking portions of a surface of said sheet, and etching the remaining areas.

56497. United States Steel Corporation. Extensometer. Comprising entry roll and exit roll over which strip passes, two pulse type tachometer generators are driven by entry roll and the other by exit roll, a pre-set counter at the output of one of said generator, an events per unit of time meter at the output of the other generator and means operable by said counter to start said meter counting at beginning of count on said counter and stopping the meter at the end of a count on said counter.

56498. Etablissements NEYRPIC. Improvements relating to an arrangement for regulating screw turbines or kaplan turbines. Conduit means provided for introducing air flow into turbine on upstream side of wheel thereof and adapted to such a rate of air flow that a stable pocket of air extends in a central portion of said turbine.

56499. Void.

56500. Void.

56501. Unilever Limited. Improvements in or relating to summarising or totalising machines. Comprising plurality of counting devices which on uni-directional rotation of its recording shaft displays a running cumulative total

and a displaceable member displacing varying lengths proportional to size of numbers comprising the addenda, each of counting devices provided with a clutch for coupling recording shaft of counting device to displaceable member so that the recording shaft of each device is individually rotatable by movement of displaceable member.

56502. Unilever Limited. Process for preparing products in which cocoa butter is normally incorporated. Wherein atleast part of the cocoa butter is replaced by a palm oil fraction having iodine value not exceeding 45, a dilation at 20° C. of not less than 1000 and a softening point 30-45° C.

56503. K. W. Foster. Improvements in feed roll sheet feeding apparatus. Driven roll has a plurality annular surface groove in spaced relation along the axis of roll.

56504. Hydril Corporation of California. Valve. With a cavity containing extrudable sealing medium provided on stopper or stopper opposing surface and not exposed to differential pressure.

56505. California Research Corporation. Compounded Hydrocarbon Fuels. Incorporating copolymer obtained by copolymerization of (1) a compound containing ethylenic linkage and 8 to 30 aliphatic carbon atoms, and (2) a compound selected from the group consisting of α - β unsaturated dicarboxylic acids and anhydrides.

56506. E. Weber. Drawing unit in spinning frames or the like with cleaning rolls. Comprising ironing (smoothing) rolls or bars working in contact with the cleaning rolls.

56507. Ciba Limited. Manufacture of esters. Reacting carboxylic acid with sulfurous acid ester containing as alcohol component at least one aryl residue.

FEBRUARY 9.

56508. V. K. Govinda Menon. Improved type of clamps for use on stranded conductors. Grooves in which the conductors are to be located formed with a fluted cross section which forms exactly the counter-part of the fluted cross-section of the stranded conductors with which the clamp is intended to be used.

56509. S. L. N. Iyer. A multi-purpose water tap. Valve normally seated on seat in tap body arranged to be actuated upwardly by cam positioned below depending portion of valve.

56510. Dronsfield Brothers Limited and S. W. Dronsfield. Improvements in camber grinding machines. (February 18, 1955.) Comprises machine bed, grinding head mounted on a longitudinally sliding carriage, a cam to adjust transversely the grinding head and rack and pinion drive for the cam.

56511. Klockner-Humboldt-Deutz Aktiengesellschaft. An arrangement for heating powdered cement raw materials or other fine granular materials. (August 5, 1955.) The tubes connecting the dust separators are rectangular in cross section.

56512. Socony Mobil Oil Company, Inc. Grease Composition and process of preparing the same. Comprising oil and mixture of calcium soaps of 10-60 per cent. of acetic acid; 10-80 per cent. of caprylic and 2-75 per cent. of stearic acid by wt.

56513. Void.

56514. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Process for the manufacture of derivatives of diphenyl-alkanes and diphenylalkenes. Reacting p-(β -dialkylamino alkoxy)-phenyl- β -phenyl alkyl ketone with an alkyl, aralkyl or aryl organo-metallic compound and subjecting the resulting compound to intramolecular dehydration.

56515. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Process for the manufacture of derivatives of diphenyl-alkanes and diphenyl alkenes. Reducing to methylene group the carboxyl group of p-(dialkylaminoalkoxy)-phenyl phenyl alkyl ketones or p-(dialkylamino alkoxy)-phenyl phenyl alkenyl ketones by means of hydrazine in presence of strong alkali.

56516. P. N. Mehta & Co. Improvements in or relating to means for treating natural and/or synthetic fibres with aqueous colloidal dispersions of silica.

Post-dated to May 9, 1956. Feeding silica dispersion and cold air into inner and outer concentric pipes respectively of a nozzle to be ejected as silica spray surrounded by air layer.

56517. S. B. Penick & Company. Alkaloid compounds and process of making them. (May 3, 1955.) Alkaloid-mixture is subjected to a solvent system of an aqueous acid and a partially halogenated aliphatic solvent and the alkaloids are separated.

FEBRUARY 10.

56518. Void.

56519. J. R. Geigy A. G. Process for the production of acyl derivatives of 5,6-dihydro-benzo [c] cinnoline. Acyl derivatives of dihydrobenzocinnolines are prepared by condensing a reactive functional derivatives of a malonic acid with dihydrobenzo cinnolines.

56520. J. R. Geigy A.-G. Improved chamber filter press. Characterised by double filter clothes covering the front and rear sides of filter plates and that are tightly joined together in central part of the latter.

56521. Olin Mathieson Chemical Corporation. Thiostrepton, its salts and method of manufacture. By cultivating a strain of streptomyces sp. 3705 in an aqueous nutrient medium under aerobic conditions.

56522. Westinghouse Air Brake Company. Fluid pressure brake apparatus. Comprises valve means to cut off quick service communication, fluid pressure motor means to shift said valve means towards normal position.

56523. Daimler-Benz Aktiengesellschaft. Internal combustion engine with fuel injection means. (December 14, 1955.) Constant quantity of fuel is injected into a precombustion chamber and rest of the quantity of fuel is sprayed in the main combustion space.

56524. Ciba Limited. New piperidinium compounds and process for their manufacture. 1-(tertiary-amino alkyl)-arylpiperidines are treated with quaternating agents.

FEBRUARY 11.

56525. Void.

56526. Boots Pure Drug Company Limited. New acaricidal compositions. (March 11, 1955.) Benzyl phenyl sulphide substituted if desired in either of the ring together with a diluent.

56527. Yeomans Furnishings Limited. Improvements in or relating to upholstered furniture. Having a plurality of readily separable portions provided with a separate covering of leather, cloth or textile fabric, the coverings being secured in position by passing resilient tension members through loops, eyelets or the like at the edges of the coverings.

56528. Standard Telephones and Cables Limited. Improvements in or relating to electric signal switching circuits and cold cathode gas-filled discharge tubes therefor. (May 13, 1955.) [Addition to No. 49345.] Having discharge gap electrodes and a conductive coating on the inside of the envelope of insulating material, a lead connected to the coating for setting up a discharge the gap between the coating and one of the discharge gap electrodes.

56529. Johnson & Johnson. Surgical dressings. (June 9, 1955.) Comprises an open mesh base fabric impregnated with an oil composition.

56530. Orr & Sembower, Inc. Fuel burner apparatus. Comprising an air plenum with concentric primary and secondary air outlet orifices at one end with means for establishing a flow of air in the plenum.

FEBRUARY 13.

56531. Void.

56532. Council of Scientific and Industrial Research. A new technique for the electrolytic preparation of cuprous oxide. Electrolysing a solution of sodium chloride and an alkali in a cell with sheet copper as cathode and refined copper as anode, the anode is kept rotating.

56533. The Dow Chemical Company. Improvements in or relating to method and apparatus for producing continuously and simultaneously a plurality of flat sheets of organic thermoplastic film. Distributing fused organic thermoplastic material continuously as unitary thin sheet outwardly from centre, slitting sheet radially at fixed points spaced about its circumference, grasping each of so separated sheets individually and conveying it radially away from the centre.

56534. C. I. Williams. Rock anchoring means and method of assembling a rock anchor. Comprising of a cone shaped member for anchoring means including a complementally formed shell member and tie rod, the cone shaped member complementally formed to receive an end of tie rod upon which the cone shaped member may be assembled.

56535. British Insulated Callender's Cables Limited. Improvements in electric cables. (February 17, 1955.) Coil of two or more conductors secured together at intervals by clips.

56536. Bayliss, Wiley & Co. Limited and F. Randells. Improvements in free wheel clutch devices. (July 12, 1955.) Comprises inner and outer ring parts with clutch mechanism in between and ring shaped cover plates formed from sheet metal by stamping.

56537. Ruhrchemie Aktiengesellschaft. Improvements in or relating to insecticides. [Divided out of No. 52755; ante-dated to September 15, 1954.] The products comprise chlorination products when obtained by chlorinating 5, 6, 7, 8, 8-hexachloro-4, 7-methylene-3a, 4, 7, 7a-tetrahydroindane.

56538. Unilever Limited. Improvements in or relating to fatty condensation products. By heating a non-hydroxylated fatty acid or anhydride in the presence of a catalyst until the product contains at least 20 per cent. unsaponifiable matter.

56539. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to a method of producing a dry, mineral stable vitamin A and/or D-preparation. A mixture of vitamin A and/or D phase, at least 2 gms. of 4-methyl 2, 6-ditertiary butyl-phenol and/or 0.2.

56540. "Metapic" S. A. Device for facilitating the starting of looms without changing the pick. Comprising at least one inertia mass connected to a rotary part of the motor.

56541. J. Lecher. Improvements relating to the reduction of the particle size of materials. (February 14, 1955.) Subjecting solid material carried in fluid to intense sonic energy by introducing first is stream flowing vertically downwardly surrounded by second stream flowing vertical upwards.

56542. N. V. Onderzoekingsinstituut Research. Process and device for continuous crimping of synthetic thermoplastic threads or yarns. A pair of rotatably mounted hyperboloids cooperating with each other and each connected with a driving means.

56543. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius and Bruning. Unsaturated polycyclic sulfites and a process for their manufacture. (April 12, 1955.) 5:6 dihydro-product of diol is reacted with thionyl chloride.

56544. A. Gardella and C. Gardella. Improvements in or relating to centrifugal spinning frames. Provided with bottomless suspended spinning cans.

56545. The British Bata Shoe Company Limited. Improvements in the manufacture of shoes and the like. Inter-sole of rubber and out-sole of wear-resistant rubber are vulcanized and united to sponge rubber there about in mould with vulcanisable mixture.

56546. California Research Corporation. Silica-Alumina Cracking catalyst and method. Comprising 10 to 75 by weight of coprecipitated, silica-alumina component dispersed throughout a predominantly silica-matrix, said silica-alumina component having an alumina content of from 20 to 60 per cent. by weight.

56547. Ashley Accessories Limited. Improvements in or relating to lamp-holders for tubular electric lamps. (March 1, 1955.) Has a contact and terminal carrying part which is retractable.

56548. Bayerische Motorenwerke Aktiengesellschaft. The manufacture of threaded cells (nuts) especially for the steering-gear of motor-cars. Comprises locating centrally a master spindle inside a jacket and casting a threaded cell within the said jacket.

56549. A. L. Cohen and L. H. S. Cohen. Mobile hoists or cranes. (February 15, 1955.) Comprises a two stage hydraulic pump to supply fluid under pressure to a ram adapted to operate an arm pivotally mounted on a column and means to relieve the pressure so as to permit the arm to be lowered.

56550. W. Witte. A low voltage electrical apparatus with built-in storage battery and rectifier for charging the same. Provided with plug pins for connecting the same to a plug point of a main the rectifier circuit including a capacitor connected with resistor.

FEBRUARY 14.

56551. Void.

56552. A. Soenneken. Loose leaf binder or file for paper or the like. Consists of a closing and opening device having an armed lever with a pawl and ratchet system having a cam disc with equidistant cams, acting on an offset section of a crank type pivoting member, connecting arched closing members.

56553. A. Soenneken. Loose leaf binders or file for papers or the like. Comprises a closing and opening mechanism having a single armed lever and a pivoted crank with shoulder on one side and crank pin at free extremity which crank pin acts on an offset section of pivoting member of arched closing members.

56554. Geimuplast Geiger & Mundt O.H.G. Improvements in or relating to stoppers for cylindrical ampoules for surgical injection. Stopper having plurality of resilient claws extending out when fixed in ampoules to receive piston rod.

56555. Ciba Limited. Pharmaceutical preparations containing an active substance. [Divided out of No. 53047; ante-dated to November 2, 1954.] The preparations contain deserpidine or an acid salt thereof with a pharmaceutical carrier.

56556. Void.

FEBRUARY 15.

56557. Void.

56558. Rheinpreussen Aktiengesellschaft für Bergbau und Chemie. Process for the pretreatment of oxidic iron catalysts. (January 4, 1956). Contacting catalyst with an oxidising gas containing more than 50 per cent. of oxygen at a temperature in the range 200°-500° C.

56559. O. Schnyder. Method for carburising pig iron and installation for carrying it out. Molten metal in drops comes into contact with a bed of coke through a layer of slag and then flows off through the base of the cupola to have the desired degree of carbonisation.

56560. Electraulic Presses Ltd.. Decompression valves. (February 25, 1955.) Valve member, uncovering exhaust port and then series of passages to allow compressed liquid to open exhaust at controlled rate.

56561. Ontario Research Foundation. Porous body. (November 25, 1955.) Comprising a mass of rice hull ash particles bonded together.

56562. The Gora-Lee Corporation. Crown cap. Cap has a top plate with inherent flexibility and a sealing member.

56563. Bates Manufacturing Company. Textile fabrics and methods for producing the fabrics. A plurality of strands of warps are inter woven with the strands of a first material in combination with strands of a stuffer.

56564. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to electric lamps or discharge tubes. Contact carrying element is a plate and the form of the edge of this plate is matched with the end.

56565. Bartrev Limited. Improvements in and relating to the mixing of particulate solid material with liquid. (February 17, 1955.) The particles

are caused to fall in a curtain at which the coating liquid is directed in the form of spray.

FEBRUARY 17.

56566. S. P. Joshi. Improvements in or relating to seals and to methods of sealing. Flexible stud of a head portion having sloping sides, a base portion which is flat, concave or convex at its top and bottom and a neck portion between the head portion and base portions, but narrower than both.

56567. Void.

56568. Void.

56569. Void.

56570. E. K. Cole Limited. Improvements in or relating to superheterodyne radio receivers embodying clock-controlled switching means. (March 4, 1955.) Clock controlled switching means substitutes for the normal frequency-changing input stage an alternative frequency-changing input stage and a further switching means is provided whereby the alternative stage may later be replaced by the normal stage.

56571. Combustion Engineering Inc. A heat exchanger. Coils through which are fluid passes disposed in outer vessel through which another fluid passes, made it pair concentric tubes, annular chamber between which is filled with high heat transfer coefficient; ends of outer tubes extending through vessel wall connected to same and ends of inner tubes connected to ends of outer tubes in fluid tight manner.

FEBRUARY 18.

56572. Void.

56573. Standard Telephones and Cables Limited. Improvements in or relating to automatic tele-communication exchange. (October 5, 1954.) [Divided out of No. 55531; ante-dated to October 4, 1955.] Subscriber's lines served include lines forming at least one P.B.X. group of subscriber's lines available *via* the normal exchange switching equipment.

56574. Spooner Food Machinery Engineering Company Limited. Improvements in or relating to the steaming of dough products. (February 23, 1955.) Steam is admitted in a steaming chamber and a baffle is provided above the path of the dough products.

56575. Aktiebolaget Pharmacia. Process for producing barbituric acid derivatives. By condensing a barbituric compound with a halide in the presence of a basic condensing agent.

56576. Dorman & Smith Limited. Improvements in and relating to circuit breakers. (July 1, 1955.) Moving contact arm in circuit with a bi-metal strip and linkages fulcrummed on a pivoted member held in supporting position by a trip member when the circuit is closed.

56577. Imperial Chemical Industries Limited. Production of new esters of phosphoric acid. (March 2, 1955.) Void after publication. Reacting saturated primary aliphatic alcohol (upto 3 C-atoms) with p-tertiary octyl aryloxy-phosphoryl dihalide with C or H in aryl group derived from 1-methyl-1-ethyl-1-(p-hydroxyphenyl) pentane.

56578. Menley & James Limited. Improvements in or relating to the manufacture of nitrofuran. Reacting a furan derivative with nitric acid in presence of catalyst.

FEBRUARY 20.

56579. Void.

56580. Void.

56581. Council of Scientific and Industrial Research. Preparation of a resin from tar oil fractions. Condensing with an aldehyde an alkali extract of tar acids.

56582. Council of Scientific and Industrial Research. A process for the manufacture of light constructional material such as hard boards, laminates, blocks or the like. Subjecting to heat and pressure fibrous or granular material impregnated with a resin.

56583. J. G. Talati. Improved faucet making device. Ribs on a pivotally mounted disc support one end of the pipe, the other end being in between a driving and an idle spinning jig.

56584. The English Electric Company Limited. Improvements in hydraulic turbines. (March 1, 1955.) Having auxiliary shutters in the form of cylindrical sluice valves which are withdrawn out of the path of water in normal operation and which are moved longitudinally between fixed stay vanes to provide a seal.

56585. Allen & Hanburys Limited. New organic salts having therapeutic properties. (March 14, 1955.) Reacting penicillin with the base N:N-bis (substituted benzyl)-p-xylylenediamine.

56586. National Research Development Corporation. Improvements in apparatus for the expulsion of liquid from fibrous materials. (February 21, 1955.) Comprising means for periodically advancing and immobilizing relatively thin layer of material and means for applying pressure during each period of immobilization to successive stationary of said material.

56587. British Filters Limited. Improvements in and relating to filtering media and the manufacture thereof. (February 21, 1955.) By extracting liquid by suction from opposite faces of the fibrous suspension through porous surface elements arranged to define the shape of the formed medium.

56588. Radio Corporation of America. Ferroelectric systems for controlling electrical signals or electric power. Comprising at least two condensers connected in series, each condenser being characterised by charge saturation and charge remanence substantially equal to said charge saturation, means for applying saturation voltage to the junction point of the condensers and means for applying control signals.

56589. J. A. Whittall. Improvements in, or relating to, cranes. (February 26, 1955.) Comprises a boom mounted upon the top of a telescopic tower to oscillate about an axis between its ends one of which is connected to the tower through cable.

56590. Schenley Industries Inc. Improvements in or relating to containers for bottles and advertising display. Comprising top, bottom, side and end walls, separators dividers, and spaced apertures in the end walls.

56591. Dallow, Lambert and Company Limited. Improvements in apparatus for the removal of solid particles from gases. Comprises an inner and an outer casings. The arrangement being such that the inflowing particle-laden gas is split by the presence of conduits between the said two casings.

56592. Shivaji Works Limited. Improvements in or relating to vices or like gripping apparatus. A differential screw mechanism is provided to control the movement.

FEBRUARY 21.

56593. Void.

56594. H. G. Heblikar. Improved Canarese typewriter and keyboard (Addition to No. 52573.) The arrangements of letters, vowels, vowel-symbols is as shown in figure of the drawings.

56595. Les Usines De Melle (Société Anonyme). Process and apparatus for producing absolute alcohol and rectified alcohol simultaneously. A portion of alcoholic vapours to be forwarded from exhausting column to rectifying column is passed in indirect heat exchange relationship with liquid from the base of dehydrating column.

56596. N. H. Lilljegen and B. G. Larsson. Moulds adapted to be driven into the ground for the moulding of concrete poles and the like. Interconnected tubular sections closed at bottom with shoe, the core being in containing core cooperating with ramming pole mutually displaceable two parts.

56597. Union Carbide and Carbon Corporation. Anode films for dry cells. (December 28, 1955.) Composition for separator diaphragm comprising a coagulated methylcellulose ether and coagulating agent consisting of water soluble chloride or sulphate of ammonia.

56598. Great Lakes Carbon Corporation. Improvements in or relating to process of preparing carbonaceous material. Flash calcining finely divided bituminous particles in a gaseous atmosphere containing oxygen in an amount so that at least 10 per cent. of the evolved combustible volatile matter remains unburnt.

56599. A. Buchi. Telescoped valve elements for internal combustion engines. A bell shaped jacket of outer element to control opening between its outer surface and seat, and inner element adapted to control mouth opening in bell jacket.

56600. Marconis Wireless Telegraph Company Limited and Standard Telephones and Cables Limited. Improvements in and relating to circuits for quantising the wave forms of electric signals. (March 11, 1955.) - A differentially responsive device having two input terminals is coupled to the main input and output terminals.

56601. James F. Low & Company Limited and T. Hill. Improvements in or relating to stop mechanisms for drawing frames for textile fibres. (February 24, 1955.) Including a detector device incorporated between the front drawing roller and the delivery rollers bearing from below against sliver delivered by the drawing roller.

FEBRUARY 22.

56602. Alembic Chemical Works Co. Ltd. Closing device for containers and the like. Stopper of polyethylene or like resilient material between screw cap and mouth of bottle or like container adapting its self to shape and size of the mouth as the cap is tightly screwed on the mouth.

56603. Automatic Telephone and Electric Company Limited. Improvements in automatic telephone exchanges. (March 11, 1955.) A hunting circuit is provided in common to a plurality of groups of lines with means for marking the available or unavailable condition of line circuits.

56604. H. Morren, Dr. Sc. Organic esters containing sulphur and salts thereof. Reacting 2-(2-diethylaminoethyl thiol)-ethanol with 1-phenyl-cyclopentane-1-carboxyl chloride.

56605. Void.

56606. Stothert & Pitt Limited. Improvement in and relating to concrete mixers. (February 25, 1955.) Comprised a mixing drum, a series of blade and means fixing the blade to the inside of the blade.

56607. D. Napier & Son Limited. Improvements in or relating to gearing. (March 8, 1955.) Comprised a pinion meshing with an internally toothed annulus gear constructed to compensate for wear by hydraulic means.

56608. Bundy Tubing Company. Method of making tube. By fashioning the strip into tubing with edges proximate, feeding a strip of bonding metal into it and passing the tube into a heating zone to melt the bonding metal.

56609. Electraulic Presses Limited. Actuating piston. (March 12, 1955.) Comprised an inlet for moving piston during pressure stroke and outlet for carrying away said pressure liquid at a controlled rate until end of pressure stroke.

56610. R. W. Crabtree & Sons Limited. Improvements in web renewing mechanism. (February 25, 1955.) Comprising a device when the running roll reaches a pre-determined diameter, sets into action a mechanism to respond to the length of web drawn from the roll, the mechanism including means for web-renewing operation into action.

56611. Unilever Limited. Improvements in or relating to dentifrice compositions. Comprised water soluble fluoride and mixture of polishing agent comprising water insoluble polymetaphosphate and calcium or magnesium ortho, pyro or metaphosphate.

56612. Ciba Limited. Improvements relating to the protection of cellulosic fibrous material from attack by Micro-organisms. [Addition to No. 47626.] Fixing the amino plast on cellulosic fibres in the presence of direct steam.

56613. N. V. Onderzoekingsinstituut Research. A process for the manufacture of artificial threads, fibres and like products from viscose. Viscose, containing 0.1-1 per cent. of polymers of epoxyalkane is spun in sulphuric acid containing bath having 2 per cent. by weight of zinc sulphate.

56614. VEB Spinn-und Zwirnereimaschinenbau Karl-Marx-Stadt. Coiling machine for bobbins. Incorporating a drum shaped cam rotatably fitted on the bobbin shaft and being driven by means of reduction gears.

56615. VEB Spinn-und Zwirnereimaschinenbau Karl-Marx-Stadt. Brake for a bobbin-holder of coiling or similar machines. Comprising a band-brake, the band embraces a segmental shaped brake block fixed to the bobbin holder.

56616. VEB Spinn-und Zwirnereimaschinenbau Karl-Marx-Stadt. Tract or guide channel with doubling device, and device for checking fibrous bands consisting of two or more single fibrous strands. Guide channel with doubling device and controlling device for the fibrous band comprising two or more single strands, control being effected by means of feelers.

FEBRUARY 23.

56617. Asahi Kasei Kogyo Kabushiki Kaisha. Improvements in or relating to container. The container has an aperture at the top and a detachable bottom plate.

56618. Void.

56619. "SHELL" Research Limited. Non-flamable hydraulic fluids. (February 25, 1955.) The fluid comprises 70-1 per cent. of a liquid polysiloxane and 30-99 per cent. of a liquid chlorofluoro aromatic hydrocarbon.

56620. Parke, Davis & Company. Amino ketone compounds and methods for producing the same. [Divided out of No. 54234: ante-dated to April 11, 1955.] The secondary hydroxyl group present in 1-ephedrine is oxidised to a keto group.

56621. Siemens Brothers & Co. Limited. Improvements relating to contact spring supports for telephone or other light current relays and selector switches. (March 7, 1955.) Including insulating material in the form of a broadly rectangular sheet with indentations forming shoulders along one edge.

56622. Hamoetza Hamadait, also known as the Israel Research Council and Dr. H. Z. Tabor. Receivers for solar heaters. Composite body of metal base and thin coating applied to it in heat-conducting relation, the physical properties of the base and coating in their behaviour to light and heat being so selected that the coating is not heat absorbing, no heat is radiated from the base through the coating and the receiver as a whole is light-absorbing and not heat-emissive.

56623. Imperial Chemical Industries Limited. New pharmaceutical compositions. (March 25, 1955.) The composition comprises an aqueous suspension of bis-(4 aminophenyl)-sulphone, a wetting agent and a suspending agent.

56624. Imperial Chemical Industries Limited. New pharmaceutical composition. (March 25, 1955.) The composition comprises 4:4'-diamino-diphenyl sulphone in aqueous solution of disodium 4:4'-diamino-diphenyl sulphone-2,2'-disulphonate in the presence of a wetting agent and suspending agent.

56625. Tecalemit Limited. Apparatus for dispensing lubricant to the wheels or rollers of chain conveyors or the wheels of rolling stock. (March 16, 1955.) Lubricant dispensing device mounted upon a carriage and lubricant is discharged under pressure into the spindles of the rollers of the moving chain.

56626. Monsanto Chemicals Limited. Improvements relating to glues containing phenolic resins and to plywood and similar materials bonded with such glues. (March 25, 1955.) Glue comprises an alkaline-condensed phenolic resin and a salt of silicofluoric acid.

56627. F. L. Smidth & Co. A. S. Improvements in the production of raw slurry for the manufacture of cement. (February 24, 1955.) The raw material

is separated into a fine fraction and a coarse fraction, the fine fraction with added water is again separated into a fine aqueous fraction and a coarse fraction, this fraction is then mixed with the coarse fraction from the first separation.

56628. G. L. Pottkamper. Improvements in or relating to road rollers of the vibratory type. Comprises an eccentric shaft located within a hollow roller axle.

56629. Void.

56630. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to electric incandescent lamps or discharge tubes. At one or more areas of its periphery the ring for clamping the cap on the bulb, consists of one or more wire or strip-shaped elements such that by deformation the cap is clamped tight on the bulb by the ring, if necessary with the interposition of slightly resilient layer.

FEBRUARY 24.

56631. Void.

FEBRUARY 25.

56632. Nitroglycerin Aktiebolaget. Oxygen-balanced plastic safety explosive. Comprising a mixture of 20 to 45 per cent. by weight of an explosive and at least one oxygen delivering inorganic salt incorporated in a gel produced from water and a hydrophilic colloid.

56633. Olin Mathieson Chemical Corporation. Method of separating tetracycline. By treating a filtrate of broth with an organic solvent at an alkaline pH, and recovering the tetracycline therefrom.

FEBRUARY 27.

56634. The Norwich Pharmacal Company. Improvements in or relating to N-(5-nitro-2-furyl)-alkylidene-3-amino-2-oxazolidones. Condensing 5-nitro-2-furaldehyde with 3-amino-2-oxazolidone.

56635. British Telecommunications Research Limited. Improvements in or relating to power feeding arrangements for telecommunication or like systems. (October 9, 1953.) [Divided out of No. 52854; ante-dated to October 8, 1954.] Including a source of power, switching means, supervisory equipment in each station, and control equipment in each station.

56636. The Goodyear Tire & Rubber Company. Improvements in joint structure. A compressible member within the space between the plates and sealing strip unattached adjacent the edges of the space but secured to the plates in sealing relation.

56637. American Cyanamid Company. New sulphonamides. Reacting 5-acylamino-4-substituted-2-benzyl-mercapto- Δ^2 2-1, 3, 4-thiadiazoline with chlorine and treating said sulfonyl chloride with ammonia.

56638. British Federal Welder and Machine Company Limited. Improvements in or relating to welding cables. (August 31, 1955.) Consisting of a copper tube wherein a cable is inserted and thereafter the tube is deformed to have portion in semi-cylindrical form, the remaining portion a flat connector portion with rounded sides and a common flat surface.

56639. United Kingdom Atomic Energy Authority. Shaft positioning devices. Comprising primary shaft to be driven via slack coupling a secondary shaft coupled via a non-slipping reduction gear from primary shaft, a locating device to locate primary shaft at same angular position on each revolution and loading means for advancing the primary shaft ahead of its drive to said angular positions utilising slack available in said slack coupling.

56640. Sandoz A. G. New tropane derivatives. Reacting 6-alkoxy tropane with diphenyl-diazo methane to obtain 6-alkoxy-tropane-benzhydryl ether.

56641. Boots Pure Drug Company Limited. New acetanilide derivatives and the manufacture thereof. (March 24, 1955). Dichloroacetanilide is reacted with a nitrogen substituted aniline.

56642. The Birmingham Small Arms Company Limited. Improvements in or relating to alloys. (February 28, 1955.) Alloys of the following composition: C-0.05-1.3 per cent., Mn-1-4 per cent., Si-1 to 1 per cent., chromium-9-20 per cent., Tungsten and/or Molybdenum-5-10 per cent., Niobium and/or Tantalum-0-2 per cent., Vanadium 0-2 per cent., Titanium 0-2 per cent., Nitrogen-0.05-0.3 per cent., Al-0.05-2 per cent., Boron 0-0.05 per cent., Nickel-0-0.5 per cent., Cobalt-0-15 per cent., Copper-0-0.5 per cent., Iron and impurities-Balance.

56643. P. W. Thornhill. Tea extract and process for producing the said extract. By disintegrating green leaf fermenting and separating liquoring constituents and concentrating liquor by evaporation.

56644. Void.

FEBRUARY 28.

56645. T. Mathew. Automatic disinfecter. Disinfectant from a metallic vessel passes to the cistern flushing pipe.

56646. M. G. DePenning. (legatee of Vivion Edward DePenning, deceased). Preparation of microbicidal articles. [Divided out of No. 52886; antedated to September 1, 1954.] Articles such as fabric are treated with an aqueous solution comprising a water soluble silver salt and subsequently with an aqueous solution of a water soluble salt the anion of which forms a sparingly water soluble silver salt, and with a second sparingly water soluble metal salt functioning as a stabiliser.

56647. Standard Telephones and Cables Limited. Improvements in telephone subscriber's sets. Comprises an insulating panel, terminals in the panel, metal straps fixed on one side of the panel and a number of components.

56648. Schlumberger Well Surveying Corporation. Apparatus for investigating material. Detecting system includes timing means for establishing observation intervals during which indications are obtained, each such interval occurring within a period including an irradiation interval and a portion of the quiescent interval terminating prior to the occurrence of a radioactive decay.

56649. The Permutit Company Limited. Improvements relating to the treatment of boiler feed water and boiler feed water plant therefor. (April 1, 1955.) [Addition to No. 47886.] Consist in passing water through anion-exchange materials to remove carbon dioxide, rate of flow being greater than make up water, excess flows to a plain surge tank and back through over flow pipe to anion exchange material.

56650. Her Majesty's Postmaster General. Improvements in or relating to information transmitting circuits. Comprises pulse storage system with means for inserting into the system other pulses and means for transmitting the coded signals.

56651. Union Rheinische Braunkohlen Krafts off Aktiengesellschaft. Process for the gasification of solid or liquid fuels. (January 3, 1956.) Wherein fuel and gasifying agent are introduced into the slag at a super atmospheric pressure.

56652. Void.

56653. Void.

56654. The General Electric Company Limited. Improvements in or relating to electrical circuits including automatic switches. (March 3, 1955.) Selector switch circuit including a test relay and at least one switching relay, so connected that test relay operates when one switch wiper engages with a bank contact connected to a suitable potential, the contacts of test relay acting to prevent further rotary stepping motion of switch wipers and to complete a circuit to operate switching relay contacts of which extending the calling lan through associated switch wipers.

56655. Chas. Pfizer & Co. Inc. Therapeutic agents and the preparation thereof. An aqueous suspension of a water insoluble therapeutic agent is mixed with a solution of one of the polyhydroxylated compounds, *viz.*, sorbitol, sucrose, levulose, maltose, galactose, sorbose and dextrose.

56656. Chas. Pfizer & Co. Inc. Antibiotic compositions and the preparation thereof. The composition comprises a tetracycline antibiotic and oleandomycin antibiotic.

56657. Daimler-Benz Aktiengesellschaft. Improvements relating to gear changing means. (December 28, 1955.) Comprising non-positive clutches, devices for engaging clutch for different gears automatic control means acting on said devices such that while first clutch is engaged, second clutch is partially engaged so that first clutch will slip until approximate equality of speed is reached at second clutch, the latter thereupon fully engaged and former disengaged.

56658. Daimler-Benz Aktiengesellschaft. Improvements in four-stroke internal combustion engines. (December 16, 1955.) Having a valve parallel to cylinder axis arranged in cylinder head wall such that at top of its stroke the piston approaches close to closed valve, a second valve parallel to the first arranged within a pocket forming main combustion chamber partly overlapping inner periphery of cylinder, an ignition chamber with injection nozzle and spark plug connected by duct to main combustion chamber and lower part of ignition chamber located approximately on level with top wall of main combustion chamber pocket and to one side of latter.

56659. Ciba Limited. Pharmaceutical preparations containing quaternary N-(substituted-aminoalkyl)-tetrachloroisindolines. [Divided out of No. 52598: ante-dated to August 23, 1954.] The composition comprises a quaternary N-(substituted-aminoalkyl)-tetrachloroisindoline and a diluent, or carrier.

56660. N. V. Philips' Gloeilampenfabrieken. New insecticidal compositions. [Divided out of No. 52053; ante-dated to June 1, 1954.] Contains carbamic acid derivative of formula $N(CH_2)_2-C-O-R$, where R represents a phenyl or

O

naphthyl group, and a carrier.

56661. N. V. Philips' Gloeilampenfabrieken. New insecticidal compositions [Divided out of No. 52052; ante-dated to June 1, 1954.] The composition comprises a compound $N(CH_2)_2-C-O-R$, wherein R stands for a phenyl group

||
O

containing 1—3 chlorine atoms and a carrier.

FEBRUARY 29.

56662. P. C. Mistry. Improvements in or relating to a mechanical device for raising water. Comprises a rotary pump driven by animal moving round on a circular platform with grooved pulleys on ropes, the tension in which causes circular movement of outcentre and crank shaft driving pump through gearing.

56663. The Wellcome Foundation Limited. Improvements in and relating to the preparation of intermediates in the synthesis of pyrimidine compounds. (March 10, 1955.) Reacting α -p-chlorophenyl- β -ketovaleronitrile with methyl sulphate in the presence of an alkali metal bicarbonate.

56664. K. F. Still. Process for the catalytic refining of benzene hydrocarbons under pressure. (September 16, 1955.) Characterised in that benzene hydrocarbons are evaporated from mixture thereof with polymerisation products in separating column by heating mixture before it enters the column.

56665. H. Meisen. Lifting sling composed of steel cables. Comprises steel cables and provided at both ends with steel stirrups.

56666. R. H. Windsor Limited and R. H. Dykehouse. Improvements in and relating to injection moulding machine. (March 17, 1955.) Thermoplastic

material fed through the preplasticising unit having a sinuous path heated by heating element and a mass of high conducting material.

56667. Western Electric Company, Incorporated. Improvements in or relating to extrusion presses, and extruding metal tubes utilizing them. (May 4, 1955.) Comprising cylinder for metal charge, a pair of opposed plungers slidable within it, a mandrel and a hollow die defining circular extrusion orifice at the centre of cylinder between the plungers, the orifice being between inner and outer coaxial conical surfaces on the mandrel and die and both forming an acute angle with their common axis in a direction away from die and converging in the direction of extrusion and the outer conical surface terminating in a sharp edge at tip of die.

56668. Western Electric Company, Incorporated. Improvements in or relating to extrusion presses. (May 4, 1955.) Comprising chamber containing charge, two opposed plungers slidable axially, and an extrusion die between the plungers and opening outside the chamber, the chamber wall being mounted to move freely along the direction of the axis of the chamber except for the action of plungers upon the charge in the chamber.

56669. Ciba Limited. New alkylated pyrazolo-pyrimidines and process for their manufacture. A 3-amino-pyrazole-4-carboxylic acid and a carboxylic acid are reacted together, one of the two carboxyl groups of the reactants being functionally converted and containing nitrogen atom.

56670. Ciba Limited. Manufacture of new pyrimidines. 2-amino or mercapto-4:6-dihydroxy-5-amino pyrimidines are reacted with phosphorus pentasulphide.

56671. L. Auer. Compositions and their use in the decorating of textiles. (January 20, 1956.) Comprising water having emulsified therein a resinous binder component comprising a thermosetting organic solvent soluble amino-aldehyde resin, a fatty acid ester resin and an elastomer.

56672. The British Tabulating Machine Company Limited. Improvements in or relating to data storage apparatus. (April 20, 1955.) Including two or more magnetic storage cores, each switchable to either of two magnetic states.

56673. Hivac Limited. Improvements in or relating to cold-cathode gas-discharge tubes. (March 17, 1955.) Anode in the form of a rod sunk within a recess in a body of insulating material, is positioned just outside the Faraday dark space of the anode-to-cathode discharge.

56674. Societe Nouvelle Des Etablissements Brandt. Improvements in and relating to a self-propelled projectile. Shape of the body and distribution of all masses constituting this body are such that the distance between the meta-centre and the centre of gravity is between zero and 0.3 times the calibre of the projectile, means being provided for imparting to projectile on its trajectory a low-velocity stabilizing rotation.

56675. Hytakos AG. Machine designed to cut and wind a cotton-wool fleece for the manufacture of pads and the like. Comprising a base plate with a stationary cam drum carrying a tool plate rotating around a vertical axis, said tool plate being provided with cutting means.

56676. J. L. Koenig. Garment, particularly day shirt having detachable collars and/or cuffs. The tabs consist of textile material stiffened by chemical process having parallel side edges and fixed at the outside of the inner turned down portion of the collars and cuffs by transverse rows of stitches.

MARCH 1.

56677. Void.

56678. Capt. A. N. D'Silva. Double-Action Piston type Self-Filler for Fountain Pens. Ink sucked through conventional duct while piston is pulled out and through another duct in the feeder and the barrel when the piston is pushed in.

56679. N. V. Philips' Gloellampenfabrieken. Improvements in or relating to studwelding guns. Stop is adjustable in the direction of the movability

of the part in three different positions so that pressure of the stud holder can be made in the upward, downward and horizontal direction.

56680. American Screw Company. Screw recess with offset grooves. Comprising a central portion and grooves extending outwardly therefrom, true radial planes extending into the grooves the driving wall of each groove lying closer to the true radial plane than the opposite wall of the same grooves.

56681. American Screw Company. Screw driver with offset wings. Comprising a shank and a shaped bit portions the latter having a central nib and a plurality of wings extending outwardly, the driving wall of each wing lying closer to the true radial plane than the opposite wall of the same wing.

56682. S. G. Young. Electric socket connectors. Consisting of a terminal block bearing a resilient stip pivotable relatively to the block about an axis perpendicular or inclined to the direction of insertion of a pin there-between.

56683. Ciba Limited. Process for separating niobium and tantalum from materials containing these metals. Treating the material by means of chlorine gas and a reducing agent and then extracting the metal with an inert solvent with exclusion of moisture.

56684. Void.

56685. British Federal Welder and Machine Company Limited. Improvements in or relating to welding cables. (August 31, 1955.) Two multicore cables encased in a common flexible insulating sheath and separated by an insulating web.

56686. Sparkler Mfg. Co. Improvements in or relating to filter apparatus. A cylindrical filter element of flexible material is open at both ends within a tank with means for sealing exterior surface of each end of filter element.

56687. H. M. Donaldson and W. D. Hebern. Improvements in or relating to cotton bale tie means. Comprises a flat rectangular metal buckle imperforate except for a slot parallel to the ends and closer to one than the other end of the buckle.

56688. Colgate-Palmolive Company. Oral compositions. [Addition to No. 48155.] Comprising a saturated aliphatic acyl amide of an amino carboxylic acid and an organo-polysiloxane.

MARCH 2.

56689. Void.

56690. Void.

56691. Hytakos AG. Method of and device for the manufacture of shape-retaining cotton-wool pressings, in particular pads. Supplying the fleece to a rotating winder, cutting the fleece heating, pressing and finally packing.

56692. Hytakos AG. Machine for the manufacture of shape retaining pressings, in particular pads. The circumference of the rotary tool holding plate is provided with several plier type clamping jaws and radially displaceable press dies.

56693. The British Petroleum Company Limited. Improvements relating to blends of diesters and complex esters suitable for use as lubricants. The blend comprises a diester and a complex ester.

56694. The British Petroleum Company Limited. Improvements relating to blends of diesters and complex esters suitable for use as lubricants. (March 4, 1955.) Comprising a liquid aliphatic diester of a saturated aliphatic dicarboxylic acid and a complex ester.

56695. J. Handley. Improvements in or relating to printing telegraph apparatus. (March 3, 1955.) Comprises a tubular support for paper, printing means in line along a circumference and means for effecting line feed operation.

56696. Void.

56697. Void.

56698. Void.

56699. Imperial Chemical Industries Limited. Improvements in or relating to the manufacture of polymeric materials. (March 4, 1955.) Injecting polyesters polyisocyanates simultaneously or consecutively into a mixing chamber and shaping the reaction mixture flowing from mixing chamber.

56700. Imperial Chemical Industries Limited. Improvements in or relating to the manufacture of polymeric materials. (December 1, 1955.) Using as catalyst a salt of tertiary amine with an organic acid.

56701. N. V. De Bataafsche Petroleum Maatschappij. Mixture compressing internal combustion engine with prechamber. Flow controlling valve means in air inlet conduit leading to cylinder, means controlling fuel flow to carburettor jet nozzle; means for controlling fuel fed to injector of prechamber; are control means so interconnected that between zero and half loads air conduit valve is more and more opened and nozzle control means remains unaffected and that between half and full loads air conduit valve is fully opened and nozzle control means are operable.

56702. Simon-Carves Limited. Improvements relating to coal or ore washing. Comprising feeding the material into a separator and introducing a liquid suspension of lower specific gravity at the same side of the separator near the surface and simultaneously withdrawing an appropriate amount of liquid suspension of the lower specific gravity and the material floating therein.

56703. Void.

56704. Void.

56705. Council of Scientific and Industrial Research. Low melting chemically resistant glass compositions. Containing 60—65 per cent. SiO_2 ; 5—9 per cent. R_2O (Fe_2O_3 or Al_2O_3); 8—12 per cent. RO ; 3—5 per cent. K_2O and 10—15 per cent. Na_2O , where RO is CaO , MgO , ZnO , MnO , BaO , or PbO .

MARCH 3.

56706. Braithwaite & Company (India) Limited. Improvements in and relating to pontoons for under-water foundation and like construction. (March 16, 1955.) A permanently floating portion in association with a platform portion which is adapted to be tilted to pitch a member endwise from a horizontal position on the pontoon.

56707. Farbenfabriken Bayer Aktiengesellschaft. Process for improving the adhesiveness of lacquers or printing colours on polyethylene products. Treating with chlorinated hydrocarbon and then irradiating with ultraviolet light.

56708. Westinghouse Brake & Signal Company Limited. Improvements relating to automatic slack adjusting mechanisms. (March 8, 1955.) Comprises a lever pivoted on a fixed pivot to rock about by an actuator and an output shaft having toothed ratchet wheel acted by an operating pawl and prevented by a fixed pawl and an operating member to operate operating pawl.

56709. Nsu Werke Aktiengesellschaft. Improvements in and relating to frames for motor bicycles and the like. (February 22, 1956.) Comprises a through of girder of mirror reversed welded halves and a secondary girder for saddle support and reinforcing insertions in the main girder.

56710. E. Duncombe and K. W. Paget. Improvements in potentiometric recorders. (March 10, 1955.) Having linearly movable chart comprising styluses spaced apart along direction of movement of chart and capable of moving together in transverse direction to movement of chart, means for moving styluses to x transverse stations with zero signal input.

56711. Carl Freudenberg Kommanditgesellschaft Auf Aktien. Improvements in or relating to gas filters for dust separation. (December 30, 1955.) Filter surfaces are made of fleece materials with fibres arranged criss-cross and are impregnated with binding agent.

56712. SKF Kugellagerfabriken Gesellschaft mit beschränkter Haftung. Mounting of spinning and twisting spindles. The sleeve is made from resilient material encircling the spindle base at least on one side of the spindle rail, one end of the sleeve bearing against the spindle rail where it is secured against radial displacement.

MARCH 5.

56713. Sulekha Works Limited. Improvements in or relating to fountain pen inks. [Post-dated to January 2, 1957.] Containing acetone as cleansing agent.

56714. Kellma A. B. Improvements in or relating to compounded internal pole synchronous machines. Includes an exciter assembled from inter connected inductive or resistive reactors and a commutator stationary with respect to them whose bars are connected with the terminals of the reactors.

56715. Void.

56716. Gay-Bell Corporation. Apparatus for the manufacture of hog-heads and the like. Comprising a feeding station, a stapling mechanism for panels, conveyor means, said means, additional means to receive the panels and transfer them through the said means, supports means for panels, a receiving station and means to push them onto the receiving station.

56717. PERFOGIT Societa per Azioni. Process for preparing polymers of amino undecanoic acid. Preparing fluid suspension of amino undecanoic acid containing 50—60 per cent. of monomer amino undecanoic acid and remainder of water, subjecting said suspension to rapid evaporation, eliminating all water and polymerizing.

56718. British Insulated Callender's Cables Limited. Improvements in lacquers and insulated electric wires and cables embodying such lacquers. (March 18, 1955.) Comprising a solution of a minor proportion of a linear polyamide and a major proportion of resin forming ingredients consisting of polyester.

56719. Westinghouse Air Brake Company. Railway car retarder speed control apparatus. One car retarder located in each classification track leading from the hump track, a car weighing device having an element mounted in the hump track and a weight storage means.

56720. Standard Oil Company. Improvements in or relating to polymerization of normally gaseous mono-olefins. Polymerising mono-olefinic hydrocarbon with 2 to 4 carbon atoms with catalyst, i.e., oxide of metal of group 5a or 6a with cocatalyst, Al, R_n, R being hydrogen or monovalent hydrocarbon radical.

56721. Maschinenfabrik Buckau R. Wolf A. G. Device for converting raw sugar mash into a pumpable matter. Wherein mixing arms within the mixing chamber are rotatably mounted on a sleeve bearing fixed to the top cover of the sealed vessel.

56722. S. N. Sett. Tower bolts and the like. Locking end is made rectangular parabolic or like section and the smaller axis of that end is smaller than the height of the clamp.

56723. D. G. Gokhale. A method and an apparatus for condensing and separating liquids from a mixture of vapours containing the same. Consisting of a jacketed cylindrical tank, inlet pipes for feeding a condensing media and mixture of vapours and means to create vacuum inside the tank.

56724. Council of Scientific and Industrial Research. A water dispersible DDT paste. Prepared by heating and stirring in presence of saponin as the dispersing agent.

56725. Council of Scientific and Industrial Research. A new process for the purification of selenium. Dissolving selenium in warm alkali metal sulphite and adding dilute mineral acid.

55726. Council of Scientific and Industrial Research. Preparation of water dispersible DDT as an oil bound paste. Containing between 45 and 89 per cent. DDT non-ionic wetting agent and cheap lubricating oil.

MARCH 6.

56727. The Holo-Krome Screw Corporation. Method and apparatus for cold forging. Comprises warming a steel blank to a temperature ranging from 150° to 450° F. by high frequency current and the cold forging the heated blank with limiting its temperature to 650° F.

56728. Automatic Telephone & Electric Company Limited. Improvements in a circuit arrangement for cyclically allotting equipments for use of the type employing gas-filled cold-cathode tubes. (March 11, 1955.) Each stage of the hunting circuit includes two tubes which strike according to the availability of corresponding stage.

56729. Automatic Telephone & Electric Company Limited. Improvements in allotting arrangements including two interconnected cyclic relay chains. (March 12, 1955.) Comprises two cyclic relay chains interconnected.

56730. Automatic Telephone and Electric Company Limited. Improvements in mounting arrangements for electrical equipment. (March 23, 1955.) Clamping pieces comprise U-shaped collar formed from sheet metal.

56731. Automatic Telephone and Electric Company Limited. Improvements in telephone or like systems. (March 18, 1955.) [Addition to No. 54574.] Employs a plurality of selector stages and have transmission bridges located in a stage preceding the final stage.

56732. Void.

56733. Montecatini Società Generale Per L'Industria Mineraria E Chimica. Crystalline linear high polymers of diolefines process for preparing them and vulcanized elastomers obtained therefrom. In presence of solid catalyst prepared by reacting halogenated compound of a transition metal or 4th, 5th or 6th group of periodic table with organo-metallic compound, e.g., of Al or Zn.

56734. Void.

56735. California Research Corporation. Production of phthalic acids. Oxidising a liquid xylene, oxidising a lower alkanol toluate, heating the reaction products together to produce phthalic acid and a lower alkanol toluate.

56736. Boots Pure Drug Company Limited. A New Piperazine Derivative. (March 8, 1955). Void after publication. Reacting piperazine with 4-n-hexyl-resorsinol in the molecular ratio of 1:2 respectively.

56737. Her Majesty's Postmaster General. Improvements in or relating to alternating current signal receiving apparatus. Comprising means for indicating when a source in transmitting signals and further means for pacing an alternating current receiver in connection with one of the sources when that source is indicated as transmitting alternating current signals.

56738. Her Majesty's Postmaster General. Improvements in or relating to apparatus for the reception of pulse coded information. In which information from a source is received by the apparatus over an input lead as signals which for any source occur only at a time characteristic of the source in a recurring time cycle.

56739. Sandoz, A.G. Process for the production of 1-methyl-4-(p-amino benzoyl)-amino-piperidine and salts thereof. Reducing the nitro group of 1-methyl-4-(p-nitro-benzoyl)-amino-piperidine to the amino group.

56740. Klockner-Humboldt-Deutz Aktiengesellschaft. Device for purifying dust-laden gas, particularly hot gas. (February 3, 1956.) Scrapers are provided to purify dust laden gas.

56741. British Nylon Spinners Limited. Improvements relating to thread packages wound from continuous filaments of a synthetic linear polymer and to processes for winding same. With superposed layers of yarn on cylindrical bobbin with each extending layer so that its taper angle does not exceed 30°.

56742. Westinghouse Brake and Signal Company Limited. Improvements relating to fluid pressure braking apparatus for railway and like vehicles. (March 8, 1955.) Comprises a pivoted auxiliary lever between thrust rod and an operating lever and carrying a roller at one end engaging surface of operating lever.

56743. Devoe & Raynolds Company, Inc. Siloxane modified epoxide resins. By reacting a polyepoxide resin containing more than one epoxide group and at least one hydroxyl group per molecule with a polysiloxane.

56744. Universal Oil Products Company. Improvements in or relating to sweetening sour hydrocarbon distillates. Hydrocarbon distillate is contacted with an inhibitor sweetening agent and a carboxylic acid salt of an amine.

56745. American Cyanamid Company. Production of improved silica gel-type catalysts. Acidifying aqueous alkali metal silicate solution at temperature of at least 60° C. and impregnating the gel thus obtained with activating metal oxide.

MARCH 7.

56746. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to stud-welding guns. Comprising a central pin acting as a stop for a stud and adjustable relatively to the movable part.

56747. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to kerosene gasifying apparatus. Heating the gasifier both in the operational condition of one or more main burners, the gas burner being constructed in the form of a tube surrounding the gasifier coaxially.

56748. Her Majesty's Postmaster General. Improvements in or relating to control units for switching systems. Having means for presenting information of connection between two circuits as simultaneously occurring electric pulses on a combination of indicating leads, to further means operable in accordance with the information to control the setting up of the connection.

56749. D. Napier & Son Limited. Air-intake assemblies for aircraft propulsion units. (March 11, 1955.) Deflecting members in inoperative position form in effect part of the surface of the forwardly projecting body or nose and in operative position lie in front of the annular air intake and deflect the approaching air stream and solid and liquid particles.

56750. British Telecommunications Research Limited. Magnetic recorders for the storage of information. (March 21, 1955.) Amended information is written on a separate track and a control key transfer it to its permanent position.

56751. Telephone Manufacturing Company Limited. Improvements in or relating to signal detectors. (March 31, 1955.) A transient detector placed in the signal path to the amplifier develop a transient bias voltage.

56752. Scottish Mechanical Light Industries Limited. Improvements in and relating to apparatus for use in the measurement of moisture content of granular materials. Comprising pointed rod-like electrodes carried by a support in fixed parallel relation and means electrically connecting the electrodes into two groups one insulated from the other, any electrode of one group having same minimum spacing from two others belonging to other group.

MARCH 8.

56753. D. P. Baranwal. Flexible wooden sole of footwear. The sole is cut into two parts at the root of the toes where it is likely to bend while walking and then the two parts are joined with metal sheet pieces.

56754. Metropolitan-Vickers Electrical Company Limited. Improvements relating to apparatus for counting railway vehicles passing a fixed location. (March 9, 1955.) Comprises an inductive device having an open magnetic circuit and an exciting coil connected in series with an impedance for energisation from A. C. Supply.

56755. The Carborundum Company. Abrasive cut-off wheels and method of manufacturing the same. Comprises the steps of placing two abrasive slabs with their parts overlapped and supported on both sides by compression members, compressing till materials flow and form bond, and dieing out wheels.

56756. Void.

56757. Cluett, Peabody & Co. Inc. Shirt Collars. The end and free marginal portion of the collar being turned back against its rear face and tape strips extend along and lie flat against said marginal edge.

56758. Cluett, Peabody & Co. Inc. Cuff and method of manufacturing same. Comprising at least one rectangular layer of fabric with its marginal edges inwardly turned over and folded longitudinally to form two superimposed arms of the cuff.

MARCH 9.

56759. N. Vergauwe. Animal scaring device. Explosive mixture produced by means of gas under pressure periodically released by a piston or valve to explosion chamber and ignited, the piston or valve and the ignition means being operated by the gas pressure.

56760. J. Paar. Improvements in and relating to impedance bridge arrangement. Frequency determining element connected to at least one bridge arm; at least one transistor, at least one electrode of which is connected to frequency determining element to form self-excited frequency generator; means for energising the generator to operate as powder supply for the bridge integral therewith.

56761. Void.

56762. Void.

MARCH 10.

56763. Void.

56764. P. Nebel. Improvements in centrifuges. (July 29, 1955.) Comprising a drum constructed as a rigid unit in several steps of increasing diameter having, in addition to the sliding plate, positioned in the narrowest part of the drum a sliding ring on each of the succeeding steps of the drum, each ring being rigidly connected to the sliding plate.

56765. S. L. N. Iyer. Portable Smokeless Choola. Smokeless choola comprising a main fuel chamber fitted with circular grate rotatable about its centre with a projecting lip over about a quarter of its circumference.

56766. Void.

56767. Void.

56768. The General Electric Company Limited. Improvements in or relating to the manufacture of metal articles from metal powders. (March 17, 1955.) Metal powder is compressed in a mould formed of flexible elastic material, the mould being subjected to hydrostatic pressure applied through the porous walls of the container.

56769. Alweg-Forschung Gesellschaft mit Beschränkter Haftung. Switch for mono-rail-track. Switch comprised of relatively movable arrangement of wheel guiding actions of track.

56770. Rohm & Hass Company. Improvements in quaternary ammonium compounds and preparation thereof. Quaternizing a monomeric tertiary amine or a polymer thereof.

56771. Carrier Corporation. Apparatus for and method of spirally winding a sheet metal ribbon about a tube to form a fin thereon. Comprising in combination means for guiding a tube, means for directing a supply of sheet metal ribbon, means for engaging the ribbon, ribbon engaging means serving differentially to elongate the ribbon throughout the width.

MARCH 12.

56772. Montecatini Societa Generale Per L'Industria Mineraria E Chimica. High molecular weight copolymers of α -olefines with diolefines and process for their preparation. Polymerising monomers at less than 120° C. in presence of catalyst obtained by reacting compound of metal of sub-groups 4th to 6th with organic compound of metal of 2nd or 3rd group of periodic system.

56773. Void.

56774. Ciba Limited. Process for halogenating compounds having a tetrazaporphin structure. The compound is heated in an anhydrous halogenating agent which contains a compound of the Friedel-Crafts' type and SO_3 or anhydrous H_2SO_4 or a compound of the formula R-SO_2 -Halogen. R being an -OH or -O-metal group or an organic radical.

56775. Ciba Limited. Process for the manufacture of halogenaryl compounds. Cyclic compounds which contain a carbonyl group bound to the ring and at most 7 benzene nuclei, are heated in a mixture of a compound of the Friedel Crafts' type and SO_3 and anhydrous H_2SO_4 or a compound R-SO_2 -Halogen, R being -OH or -O-metal, or an organic residue.

56776. Power Jets (Research & Development) Limited. Improvements in or relating to gas turbine-driven plant. Normally operative governor control and mechanism responsive to demand of compressed gaseous output overriding the control of governor at reduced output to restrict fuel input to predetermined iddling rate.

56777. British Insulated Callender's Cables Limited. Improvements in electric cables. (June 23, 1955.) [Addition to No. 56535.] Each clip is a flat plate having portions in the form of tongues bent out of the plane.

56778. Bristol Aero Engines Limited. Improvements in or relating to combustion chambers for gas turbine engines. (March 16, 1955.) Comprises an entry portion, a body portion and an outlet portion of inner double walled and outer wall structures diversing near entry and converging near outlet portion and fuel injecting means and means to create swirl.

56779. Technicolor Motion Picture Corporation. Cinematographic film printing or processing machine. Having film feed station, feed elevator, work station take-up elevator, take-up station and film stopping means responsive to cue to stop film feed to and from elevators respectively to permit film to be disconnected from feed and take-up stations and spliced in a loop or *vice versa*, without stopping film feed through work station.

56780. Imperial Chemical Industries Limited. New Veterinary Compositions. (March 25, 1955.) Void after publication. Comprises 1:1'-di-n-butyl-2:2'-quinocarbocyanine, 3:3'-di-n-butyl-2:2'-benzthiazocarbocyanine or (1-n-butyl-quinoline-2) (3'-n-butyl-benzthiazole-2') trimethine cyanine.

56781. Heinrich Koppers Gesellschaft mit beschränkter Haftung. Arrangement for gasifying finely divided solid fuels in suspension. Pressure condition in the supply pipes is supervised by a pressure-measuring device.

56782. K. P. Bhawe. Improvements in or relating to slates with ruler attachments. Having on its frame members two guides on which are provided as permanent attachment sliding members carrying a ruler for drawing lines on the slate.

MARCH 13.

56783. Hercules Powder Company. Improvements in or relating to process for polymerizing olefines. Polymerizing at least one ethylenically unsaturated hydrocarbon by contacting the said unsaturated hydrocarbon with a two-component catalyst composition.

56784. A. M. I. (International) S. A. A combination automatic phonograph cabinet and speaker horn. Cabinet comprising bottom panel with a back-wall and a pair of side walls extending upwardly therefrom with legs supporting the cabinet with bottom panel spaced above a supporting surface, with at least one internal partition dividing the cabinet into a record changer

compartment and a horn, the horn discharging into space between the bottom of the cabinet and supporting surface below it.

56785. Bradley Container Corporation. Squeeze-to-use container. (January 24, 1956.) Consists of a thin flexible body wall, a metallic end closure engaging the inner wall surface of the body.

56786. J. L. Reutter. Oscillating compressor whose movement is electromagnetically maintained. Comprises pistons connected to the plates which support polarised armatures displaced in air gap de-limited by magnetic circuit of eight poles on which alternating current coils are wound.

56787. Dunlop Rubber Company Limited. Apparatus for the manufacture of pockets of rubberised fabric for the manufacture of pneumatic tyre covers. Winding device having a rotary support and wing members, means to adjust relative angular position of these members and support, means for feeding rubberised fabric to the winding device while it is rotating and means for holding fabric in position on the support.

56788. Societe Des Usines Chimiques Rhone-Poulenc. Improvements in or relating to phosphorus derivatives and compositions containing same. (March 18, 1955.) By reacting a phosphorochloridothionate with a phenol or thiophenol.

56789. Clayton Manufacturing Company. Improvements in or relating to fluid heating apparatus. (September 20, 1955.) Comprising combustion chamber and tubular system of continuous rings on support with means activated by expansion of ring to operate fuel supply therefor.

56790. The Chloride Electrical Storage Company Limited. Improvements in alkaline type electric accumulators. (March 16, 1955.) A firmly cemented paste made by mixing cadmium powder, water and an adhesive is supplied to a metallic grid, partly dried and then consolidated by pressure.

56791. The Dow Chemical Company. Improvements in or relating to method of removing impurities from solutions. Adding an excess of a water soluble persulphate to a water solution of at least 40 per cent. salt concentration.

56792. American Cyanamid Company. Improved method of producing tetracycline. (February 8, 1956.) [Addition to No. 50502.] Growing strains of *Streptomyces aureofaciens* in fermentation media containing more than 50 parts per million chloride ions.

56793. Rohm & Haas Company. Improvements in polymeric quaternary ammonium compounds and method of making same. Copolymerizing a quaternary monomer and another monomer.

56794. Heinrich Koppers Gesellschaft mit beschränkter Haftung. Installation for utilising the sensible heat of gases. Wherein a steam-generating device consists of a cylindrical water boiler arranged above the gasifying chamber and having a wide tube surrounded by a plurality of tubes.

56795. B. W. Palmer. Improvements in or relating to loom pickers. A moulding of laminated rubber and canvas or plastic and canvas or a combination of rubber and plastic and canvas having the spindle hole in the head of the picker lined with a bearing bush.

56796. B. W. Palmer. New or improved roller, more particularly pressing roller, for textile machinery. Rim portion composed of a resilient material united by moulding to the moulded material of the rest of the main body of the roller.

56797. National Cylinder Gas Company. Foamed resin products and the production thereof. A foaming agent is introduced into a plastisol containing polyvinyl chloride.

56798. National Cylinder Gas Company. Process of forming foamed vinyl resin and the resin so formed. Introducing a foaming agent having a boiling point between 40 to 175° F. into a plastisol containing polyvinyl chloride.

56799. Veb Spinn-Und Zwirnereimaschinenbau Karl-Marx-Stadt. Method and device for cross coiling threads of yarns onto reels. The thread passes

over an inclined face of a cylindrical shaped thread guide before the thread is coiled on the reel.

56800. Veb Spinn-Und Zwirnereimaschinenbau Karl-Marx-Stadt. Device for the to and fro movement of heavy mass especially in spinning machines for synthetic fibers. Placing two cylindrical cams inside a housing at the centre of the machine in such a way that the sliding brackets together with the pushing rods are moved in opposite directions.

MARCH 14.

56801. D. Ramaswami, V. N. Kumarkrishna Rao and Dr. M. N. Rao. Automatic control of electric system by dial pointer mechanism. [Post-dated to July 15, 1957.] Dial pointer end completing the electrical circuit of an electromagnetic switching device which is operated to effect the desired control at predetermined position of the pointer.

56802. E. Andreas. Improvements in or relating to disintegrators and crushing machines of the slinging impact type. In combination a casing of a rotary member having notches at its peripheral surface with striking blades within the notches supports suspended in the casing and bearing impinging plates.

56803. The Lummus Company. Process for producing phosphatic fertilizers. Combining granula calcium potassium or sodium metaphate with phosphate rock, dolomite or limestone in presence of water and strong mineral acid.

56804. O-M Spinning Machine Mfg. Co. Ltd. Improvements in a device in a spinning frame to wind up a yarn end on the neck of a spindle. A device to automatically lower the ring rail beyond its starting position when the machine stop and another device to automatically slack a chain supporting the ring rail.

56805. Her Majesty's Postmaster General. Improvements in or relating to electronic telephone exchange systems. Each audio circuit is connected by a modulator or modulators.

56806. Svenska Rotor Maskiner Aktiebolag. Improvements in and relating to rotary devices, particularly rotary heat exchangers. Comprises bracket means extending outwards from circumference, a ball bearing having antifriction balls in raceways between a lower stationary and an upper, rotatable member.

56807. Svenska Rotor Maskiner Aktiebolag. Improvements in and relating to rotary regenerative heat exchangers. Comprising rotor, stationary component and bearing means, the rotor including plurality of sector shaped baskets positioned in abutting relationship around the centre of the rotary device.

56808. Svenska Rotor Maskiner Aktiebolag. Improvements in and relating to regenerative heat exchangers. Having a casing component, aligned inlet and outlet, ducts, and a rotor component.

56809. National Malleable and Steel Castings Company. A railway cushioning device and method of making the same. Spaced plates and resilient material with spaced openings disposed between and molded to the plates.

56810. British Dielectric Research Limited. Improvements in or relating to electrolytic capacitors and their manufacture. (March 28, 1955.) Tantalum is electropolished before being anodically formed.

56811. The Chloride Electrical Storage Company Limited. Improvements in alkaline type electric accumulators. (March 31, 1955.) In which upto 50 per cent. by weight of finely-divided nickel powder is incorporated during manufacture in the cadmium paste forming the negative active material.

56812. Union Carbide and Carbon Corporation. Leak resistant dry cell. Having a rigid top closure, a displaceable inner seal, and a venting washer.

56813. Union Carbide and Carbon Corporation. Post-mixed desurfacing nozzle for use with many different fuel gases. (January 10, 1956.) Having a

longitudinal, axial transversely elongated passageway for a stream of oxygen, a cap over the discharge end, a step formed in each of the two longer sides of the discharge end.

56814. Technicolor Motion Picture Corporation. Planographic dye-absorptive film and method of making same. Comprising a record of scene in inner strata of a coating, comprising of metallic ferrocyanide impermeable to dye and a complementary record of the scene in the outer strata of the coating, of absorbed dye.

56815. Deutsche Gold-und Silber-Scheideanstalt vormals Roessler. Bleaching apparatus. (February 23, 1956.) Parts of bleaching apparatus are made of nickel chromium, molybdenum iron alloy.

56816. Void.

56817. Council of Scientific and Industrial Research. Improvements in or relating to compensators for transformers. Compensator in combination with secondary compensator winding, phase shifting network, a cathode follower circuit and amplitude controlling circuit which is connected to output side of cathode follower circuit.

56818. Council of Scientific and Industrial Research. An improved process for the manufacture of vinyl chloride from ethylene dichloride. Superheated vapours of ethylene dichloride are passed through a fluidized catalyst bed of non-porous substances at 350—800° C.

MARCH 15.

56819. Industrial Development Co. (Establishment). Improvements in or relating to process and apparatus for the manufacture of concrete articles, particularly of reinforced concrete. Forming cavity of open at both ends and passing gas therethrough before concrete sets.

56820. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to solid-state image-intensifiers for the reproduction of images produced by radiation pulses. Electro-luminescence light reacting on photo-sensitive material to such extent and voltage at electrodes is chosen such that static characteristic curve of image intensifier comprises between a lower and upper branch, an unstable area which is restricted such that in the absence of radiation image, the image intensifier adjusts itself to a state which is indicated by a point on the lower branch of the curve outside the unstable area.

56821. Montecatini Societa Generale Per L'Industria Mineraria E Chimica and K. Ziegler. Process for the production of crystalline polystyrene. Carrying out the polymerisation in presence of a solvent for low molecular weight styrene polymers and using a catalyst obtained by reacting a compound of a metal of sub-groups of 4th to 6th groups and a metal, metal alloy, metal hydride or organo metallic compound of 1st to 3rd groups of periodic system.

56822. Huwood Mining Machinery Limited. Improvements relating to coal mining ploughs. (March 16, 1955.) Roller type cutter provided on the plough ahead of the cutting edge and wedge formation on the carriage.

56823. Huwood Mining Machinery Limited. Improvements relating to conveyors. (March 16, 1955.) Metal slats affixed to an endless flexible belt movable over rollers or drums, driven by endless chain or cables on which the turn up ends of the slats rest.

56824. Hoover Limited. Improvements relating to power-driven clothes wringers. (March 25, 1955.) Providing a safety device responsive to the spacing between the rollers so as to operate if the rollers are forced apart more than a predetermined distance.

56825. Hoover Limited. Improvements relating to power driven clothes wringers. (August 26, 1955.) [Addition to No. 56824.] Providing a manual operating member carrying the latch detent and extending along the side of the wringer and pivoted on the second frame member.

56826. E. K. Cole Limited. Improvements relating to nucleonic thickness gauges. (March 25, 1955.) Comprising a detector coupled to utilisation circuit

through an amplifier and to a source of balancing potential, the arrangement being such that adjustment both of gain of the amplifier and of the effective output of said source is effected by a single control whereby signal to utilisation circuit is automatically compensated for effects of decay and/or contamination of the radio active source and contamination of the detector.

56827. Svenska Rotor Maskiner Aktiebolag. Improvements in and relating to regenerative heat exchangers. A casing providing passages for hot and cold gases, a structural frame work including a hub portion and a rotor encircles the hub portion.

56828. General Electric Company. Boiling reactor. Comprises a nuclear reactor with a volatile coolant and means for extracting energy and for providing sub-cooled coolant to the reactor.

56829. Vereinigte Kapselfabriken Nackenheim Aktiengesellschaft. Improvements in or relating to capsules. With bottom formed by folding and pressing metallic foil shell and is perpendicular to cone axis with knot projecting towards interior.

56830. The Chairman, Indian Tea Association. Process and apparatus for multi-stage withering of tea-leaf. Subjecting the leaf successively into two withering tunnels wherein hot air is blown in opposite directions for effecting withering action.

56831. Void.

56832. R. Amritlal and Mrs. Prakash Rani Ranchhodlal Amritlal. Jigger for dyeing, finishing or padding textile fabrics. Comprising a driving roller, two batch rollers above the driving roller, a guide roller and a temperature control for the bath.

MARCH 16.

56833. The Mond Nickle Company Limited. Improvements relating to alloys. Containing a precipitable Ni, (Ti, Al) phase and containing nickle, chromium, carbon, titanium, molybdenum, boron, zirconium, aluminium, manganese, silicon, copper vanadium, cobalt and iron.

56834. S. G. Young. Improvements in or relating to electric socket outlets. Comprising a housing, a unitary shutter member, cam surfaces on the shutter, spring means, locking surfaces on the shutter and the housing for co-operating with each other.

56895. M. V. F. Capron and E. Uher. Differential drive for independent wheels. Comprises and engine, two V-belt torque converters, a reversing gear with a neutral position and a centrifugal clutch, hydraulic means to vary radii of driving pulleys of convertor for differential drive.

56836. Hughes Tool Company. Roller cutter for earth drill. Includes cutter body having a bottom cutting portion and a gage cutting portion, cutting elements on said bottom cutting portion and series of wear resistant insert in the body.

56837. The Lummus Company. Process for producing mixed fertilizers and products thereof. Mixing calcium, potassium or sodium metaphosphate with water in presence of strong mineral acid, acidulating resulting primary orthophosphate and neutralizing reaction mixture with ammoniating agent.

56838. G. Crespi. Improvements in or relating to basic refractory lining for the walls and the hearth plates of metallurgical furnaces. Lining is formed by a refractory mixture consisting of coarse pieces of dolomite mixed with dolomite in powder form and binding agents.

56839. The Wellcome Foundation Limited. Injectable solutions of digoxin [Addition to No. 51819.] Comprising digoxin in a solvent mixture consisting of, by volume 5 to 10 per cent. ethyl alcohol 40-50 per cent. propylene glycol and not less than 40 per cent. water.

MARCH 17.

56840. P. Weninger. Device such as stowable tent-like structure fitted to the roof of a vehicle. (March 19, 1955.) Basic member secured to vehicle roof

and frame members attached to basic member to be transported flat when unused but unfolded in co-operation with tent-awning in operative condition.

56841. A. Soenneken. Fountain pen. Nib being guided in longitudinal direction of the holder by means of co-operating means.

56842. Mid-Century Corporation. A process for the oxidation of aliphatic substituted aromatic compounds. (May 2, 1955.) Reacting aromatic compound with at least one aliphatic substituent with molecular oxygen in presence of bromine and a heavy metal oxidation catalyst.

56843. Ricardo & Company, Engineers (1927) Limited. Cylinder Assemblies for air-cooled internal combustion Engines. (March 18, 1955.) Void after publication. Comprises tubular stress taxing column, a cylindrical barrel with outwardly extending fins outer air inlet and outlet passages, a cylindrical head bolted to barrel.

56844. Glaxo Laboratories Limited. Improvements in or relating to griseofulvin production. (March 28, 1955.) Culturing grisafulvin-producing organism in culture medium.

56845. The Goodyear Tire & Rubber Company. Improvements in automatic adjustment grip for brakes. There are split rings in compressive engagement with a split carrier sleeve.

56846. The Goodyear Tire & Rubber Company. Improvements in brake deflection compensator. A brake housing with a cylinder therein to receive a brake piston and including an auxiliary piston co-operating with a brake piston and resilient means to oppose movement of auxiliary piston.

56847. The Goodyear Tire & Rubber Company. Improvements in preparation of flexible elastomeric cellular materials. Reacting an active hydrogen containing polymeric material with molecular weight 750 to 2,250 and acid number not greater than 5 with .90 to 1.10 mols of diisocyanate per mol of polymeric material.

MARCH 19.

56848. Unilever Limited. Improvements in or relating to the stabilisation of soap. (March 22, 1955.) 0.01 to 5 per cent. by weight of a hydrazide of the formula Ar-X-NH-HN wherein Ar is an aromatic nucleus, and X is $-\text{CO}-$ or $-\text{SO}_2-$ is incorporated in a soap composition.

56849. S. D. Kulkarni. Improved mechanical forced-feed lubricator for internal combustion engines and the like. Gravity operated tank with spring loaded needle valve in it and a plunger block seated under the oil tank having an oil chamber to receive oil percolating from the oil tank.

56850. S. D. Kulkarni. Improved turbulence combustion chamber for internal combustion engines and the like. Funnel shaped cylinder block ends in a turbulence chamber with an internal contour of spherical form.

56851. N. V. De Bataafsche Petroleum Maatschappij. Process for the catalytic reforming of hydrocarbon mixtures of the gasoline type. Hydrocarbon mixtures with hydrogen are contacted with a platinum catalyst on a carrier.

56852. Chas. Pfizer & Co. Inc. Steroid compounds and the preparation thereof. Contacting 3-keto steroid compound having a single double bond in ring A at 4, 5-position with chloranil.

56853. D. Napier & Son Limited. Bearing assemblies for supporting rotary shafts. (March 25, 1955.) Comprises a roller or ball bearing in annular space between shaft and housing, clearance between inner sides a trough and a cup member attached to bearings, and means for passing gas through said clearance to oppose oil leakage.

56854. D. Napier & Son Limited. Exhaust duct assemblies for air-craft propulsion units of the combustion turbine type. (March 30, 1955.) Comprises annular diffusing duct terminating in two volute ducts and a common delivery duct, leading to a nozzle.

56855. Commissariat A L'Energie Atomique. Improvements in devices for ensuring an electric contact between rotary parts of an electric machine. Using conductor liquid (metal) subjected to centrifugal force so as to move in a continuous fashion throughout a circuit of which the external portion of which comprises means for cooling said liquid.

56856. General Electric Company. High-energy magnetic material. Sub-microscopic particle having an elongated shape with a transverse dimension to preclude the appearance of more than a single magnetic domain in transverse direction.

56857. Void.

56858. R. Hattori. Improvements in or relating to stripping rolls for carding engines. Comprising a rotating body, a cleaning brush made of soft bristles a stripping fillet equipped with stiff bristles in radially adjustable manner.

56859. L. B. Mathur and R. Sahai. A process for refining and hydrogenating oils containing thiocyanates. Before hydrogenation, fixed thiocyanates are removed by precipitation with alum and volatile thiocyanates by deodorisation.

56860. Void.

56861. Made cognate to application No. 56479.

MARCH 20.

56862. Void.

56863. Void.

56864. Dunlop Rubber Company Limited. Improvements in or relating to pneumatic tyre covers. Chafer strips comprise fabric of a plurality of mutually interlocked lengths of filamentary material parallel with the bead wire.

56865. American Cyanamid Company. Silica-alumina slurries and silicagel catalysts produced therefrom. [Addition to No. 49162.] Reacting alum and an alkali metal aluminate in the presence of hydrated silicagel in aqueous suspension.

56866. E. K. Cole Limited. Improvements in or relating to operating knobs for the control shafts of adjustable electrical components. (March 31, 1955.) Knob has a boss on which is sprung a clip partly encircling the boss.

56867. Svenska Aktiebolaget Bromsregulator. A device for changing the brake applying leverage in the brake rigging for vehicle brakes. Extension of connecting link guides housing by having two portions of equal diameter sliding in cylindrical portions of housing, which are located on both sides of movable abutment and are of equal inner diameter.

56868. The Lummus Company. Process for producing fertilizers. Phosphatic material is treated at elevated pressure and temperature.

56869. The Lummus Company. Process for producing fertilizers and products thereof. Reacting a phosphate with a strong base in presence of water.

56870. N. V. Onderzoekingsinstituut Research. A false-twisting device and a method for false-twisting threads. The narrowed intermediate portion of the rotational system is freely rotatable in relation to and co-axially with both end portions of said system.

MARCH 21.

56871. Satya Industries Ltd. An improved clutch for holding dynamos for bicycles or the like. Comprises two flat metal members one stationary and the other movable.

56872. The General Electric Company Limited. Improvements in or relating to semi-conductor devices. (April 1, 1955.) Of the junction type, the rectifier element being clamped between a pair of opposing electrodes which are clamped together in an insulating manner.

56873. The consolidated Pneumatic Tool Company Limited. Improvements in or relating to installations for compressing air or gas. (March 28, 1955.) There are provided means for progressively throttling the inflow of the gas and means to actuate the throttle in response to the pressure increase.

56874. Void.

56875. O. P. Aranya. Improvements in or relating to railway sleeper clamps. Comprising more than two incomplete hoops connected by horizontal tie bars, distance between tie bars is smaller than diameters of hoops.

56876. Aktiebolaget Separator. An apparatus for mixing under varying pressure one fluid with another fluid in a definite ratio of quantity. Comprising a supply pipe having a throttling device for each fluid, a pipe branched off from the one supply pipe and returning to an appurtenant feeding device having a throttling valve.

56877. Houdry Process Corporation. Method of preparing hard, active cracking catalysts from kaolin clays. Subjecting sulphated clay for decomposition of sulphate and steaming at 750°-1600° F.

56878. Creed & Company Limited. Improvements in or relating to perforating apparatus for perforating a tape according to a code. (April 4, 1955.) Consisting of a plurality of punch members which may be selected for operation and a punch frame operated by a motor through toggle levers.

56879. The Lummus Company. Methods for producing fertilizers and product thereof. Comprises particulate calcium metaphosphate intimately mixed with water.

56880. The Lummus Company. Methods for producing concentrated superphosphates. Acidulating phosphate rock by using phosphoric acid and curing the reaction product.

56881. Societe Anonyme Des Usines Chausson. An electro-magnetically maintained oscillating movement hermetic compressor. Including a resilient thin plate supporting polarised magnetic armatures placed in the airgap of a magnetic circuit excited by alternating current causing oscillatory movement of said plate which controls the movement of a piston in a chamber.

56882. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Process for the manufacture of piperidyl carbinol compounds. An ester of pyridine α or β carboxylic acid is subjected to hydrogenation and to the action of an organometallic phenyl compound, the 2-substituted compound being quaternised with ethyl p-toluene-sulphonate prior to hydrogenation.

56883. V. Caffi. A process for the manufacture of panels, plates and shaped pieces from natural rice husk, and particularly from chemically and biologically treated rice husk. Wherein a paste made from rice chaff or husk and self hardening binders based on urea and/or formaldehyde and/or phenol and/or cement and substances containing magnesia, is cast into moulds.

MARCH 22.

56884. Void.

56885. V. K. Govinda Menon. An improved type of multi-cell batteries of the lead-acid type built into a single casing, such as those used for motor vehicles. Consists of a casing common to all the cells and two or more battery cells assembled in said casing wherein the terminals of each cell are assembled as independent of the terminals of other cells.

56886. Societe Des Usines Chimiques Rhone-Poulenc. (Improvements in or relating to phenthiazine derivatives. (February 3, 1956) Reacting 3-chloro-10-(3-dimethylamino propyl)-phenthiazine with an olefinically unsaturated aliphatic dicarboxylic acid containing 4 to 5 carbon atoms.

56887. Harry Ferguson Research Limited. Improved motor vehicle transmission system. (April 6, 1955.) Braking means applied to input transmitted from the intermediate differential to one of the interwheel differential

and separate braking means on two outputs transmitted from the other inter-wheel differential.

56888. Parke, Davis & Company. Process for producing oxonorleucine compounds. Reacting hydrazine and lower alkyl ester of 6-diazo-5-oxo-N-phthaloylnorbencine and hydrolysing the ester group of the resulting product.

56889. Imperial Chemical Industries Limited. Improvements in or relating to delay blasting devices. (June 22, 1955.) A plurality of blasting explosive charges connected together by a detonating fuse which showed detonate at predetermined intervals between the detonations.

56890. Daimler-Benz Aktiengesellschaft. Improvements relating to regulatable air-cooling systems for internal combustion engines. (January 10, 1956.) Cooling air flows conducted through the jackets and around them by enclosed spaces by passing the jackets and one of these air flows can be regulated or cut off, cooling air being conducted through common manifold ducts upstream and downstream of cooling jackets and enclosed spaces.

56891. S. Stokland. Improvements in agricultural machines for use as a seed planter and/or fertilizer distributor. Comprises upwardly diverging seed cup mounted for rotation about a vertical axis and having a opening near bottom and angular member with channels to communicate with ploughs and means to rotate and feed seeds to cup.

MARCH 23.

56892. Void.

56893. Ricardo & Co., Engineers (1927) Limited. Air-cooled cylinder head constructions for internal combustion engines. (March 23, 1955.) Comprises metal body filling space between inlet and exhaust passages an adjacent to pressure resisting wall and cooling fins thereon lying unobstructed by said passages.

56894. Montecatini Societa Generale Per L'Industria Mineraria E Chimica. Processes for polymerising olefins with catalyts containing alkyl lead compounds. α -olefin is polymerised in presence of a catalyst.

56895. The Lummus Company. Process for producing fertilizers. Mixing a superphosphate with metaphosphates and pile curing the resulting mixture.

56896. Daimler-Benz Aktiengesellschaft. Improvements relating to change-speed gearing associated with hydrodynamic power transmitting apparatus. (January 27, 1956.) Driving train connecting turbine wheel to gearing in parallel with bridging clutch interrupted by a clutch and turbine wheel braked such that with interrupting clutch disengaged and bridging clutch engaged, gearing can be braked by braked turbine wheel by way of bridging clutch and hydrodynamic unit.

56897. G. W. Astell and J. Watts. Improvements in or relating to power-take-off arrangements for tractors and other mechanically propelled vehicles. [Divided out of No. 55060; ante-dated to July 29, 1955.] Driven half shaft freely rotatable with associated road wheel divided into two portions each carrying a pinion; a sliding pinion on an auxiliary shaft arranged to mesh with both pinions and to mesh with one of the pinions and another pinion on a second auxiliary shaft so as to drive road wheel and to provide a drive through second auxiliary shaft respectively.

56898. G. W. Astell and J. Watts. Improvements in or relating to power-take-off arrangements for tractors and other mechanically propelled vehicles. [Divided out of No. 55060; ante-dated to July 29, 1955.] Extension shaft carrying fixedly mounted toothed wheel arranged to be secured to one of two half shafts of rear axle, a sleeve member freely rotatable on extension shaft and arranged to carry associated road wheel and manually operable locking pin for establishing driving connection between extension shaft and sleeve member.

56899. Western Electric Company, Incorporated. Improvements in or relating to ferroelectric signal storage devices. (October 21, 1955.) Including a dielectric element of crystalline material having structure of alum, but of hexa-

hydrated form and in which a guanidinium radical is substituted for the mono-valent cation of the alum.

56900. D. B. Kadabi. Improved paddy roasting device. Consists of a frame with bearing pivotally mounted on a vertical pedestal and a hollow rotatable drum wherein said drum is capable of being tilted to any required degree for controlling the inflow and outflow of the rice paddy.

56901. D. B. Kadabi. Improved device for manufacturing 'Poha' or flattened rice. Provided with a feeder roller having longitudinal blades on the surface, the roller being in frictional contact with three or more rice flattening rollers.

56902. D. B. Kadabi. Improved centrifugal device for manufacturing 'Poha' or flattened rice. Consists of a horizontal arm, on which a hollow spindle is vertically mounted on bearings, a fly-wheel mounted on the spindle, which is provided with a valve seat.

MARCH 24.

56903. W. & T. Avery Limited. Improvements in automatic weight indicating mechanism. Pendulous units yoked together as pair or pairs, the resistant to the load in the form of a pair or pairs of opposed pendulous weight cam units each embodying a load segment and a fulcrum segment, the load segment being adjustable in relation to the fulcrum segment and a flexible connection between the yoke and the rack and pinion coupling from the yoke to the weight indicator spindle.

56904. E. Weiss. Improvements in stretching seamless metallic hollow bodies. Stretching seamless metallic hollow bodies in passes composed of at least five, at most seven, preferably six rollers.

56905. Ricardo & Co., Engineers (1927) Limited. Improvements relating to timing mechanism including a helical gear through which the drive to be timed is transmitted. (January 26, 1956.) Including helical gear, two screw threaded members one secured to said gear and the other mounted to rotate with it but prevented from moving longitudinally and an adjusting member with screw-threads co-operating with both screw-threads so that rotation of adjusting member relative to gear well adjust gear longitudinally.

56906. B. B. Blackford and G. W. McLaren Jr. Roll of adhesive tape. (May 28, 1955.) Longitudinal tension in the tape is no greater in the convolutions adjacent the core than throughout the rest of the roll.

56907. Simon-Carves Limited. Improvements relating to demagnetising apparatus. Consists of pole-pieces so shaped as to cause the field strength between them to diminish gradually.

56908. Imperial Chemical Industries Limited. Improvements relating to the brazing of titanium or titanium base alloys. (March 30, 1955.) Using brazing material which is an alloy based on a mixture of titanium with another element so chosen that the brazing alloy is eutectiferous.

56909. A. H. Hunt (Capacitors) Limited. Improvements in or relating to electrical capacitors. (March 29, 1955.) Comprising one or more layers of flexible plastic film dielectric and paper dielectric metallised on one face.

56910. Plodari Francesco Prima Fabbrica Italiana Serrature. Night latches. Providing within door knob locking device comprising pushbottom and toothed member co-operating with toothed wheel to rotate coaxial plate preventing rotation thereof.

MARCH 27.

56911. Void.

56912. A. K. Ghosh. Device for quick tightening or loosening of nuts and bolts. Comprises three separable units *viz.*, front middle and rear units held together by retaining screws each unit being provided with rotatable spindle.

56913. N. V. De Bataafsche Petroleum Maatschappij. Device for connecting two compressed gas reservoirs, one in use and the other in reserve

enabling the said reservoirs to be changed over as required. Two relief valves with different closing pressures connect the two reservoirs.

56914. Parke, Davis & Company. Vaccine products and method of producing the same. (February 24, 1956.) Subjecting aqueous medium containing living poliomyelitis virus to treatment with a combination of ultraviolet irradiation and heat and/or heat and formaldehyde.

56915. Cluett, Peabody & Co., Inc. Dimple forming necktie construction. Providing a liner having a head set crease extending in a direction lengthwise of the necktie.

56916. Cluett, Peabody & Co. Inc. French type cuff. Comprising an elongated sheet of fabric having the marginal edges folded inwardly forming two superposed arms and button hole stitching serving as the means to secure the marginal edges together.

56917. British insulated Callender's (Submarine Cables) Limited. Improvements in or relating to electric cable joints and insertion pieces for them. (April 12, 1955.) Comprising an open helix of metal strip supporting and extending at each end beyond an intermediate portion of layer of wires extending helically thereon and the wires of intermediate portion being soldered together to maintain them in position on the helix.

56918. Electraulic Presses Limited. Control means for hydraulic presses. (March 30, 1955.) Of the type in which the pressure liquid for the operating stroke and return stroke of the hydraulic press is directly supplied by hydraulic pumps without the interception of a hydraulic accumulator.

56919. Farmaceutici Italia S. A. Process for converting optically active aminodiols into racemic aminodiols. (Addition to No. 51974.) p-Nitro- α -acylamino-acrylophenone is converted by an addition reaction with aliphatic alcohol, the product is reduced and then epimerised, the resulting compound being converted to aminodiol.

56920. The Procter & Gamble Company. Detergent composition. Anionic organic sulphuric acid reaction products, soluble soaps of fatty acids and a binder filler.

56921. G. L. Malan. An eccentric rotary device. Including a casing with an inner race, a free rotor inside the race, a source of pressure fluid, vanes slidable in an out of recesses in rotor defining chambers, and successively in sealing contact with race defining compartments, supply, exhaust ports and passages for said chambers and compartments in register with inlet and exhaust ports in the housing and means for supplying the fluid to chambers independently of compartment supply ports and passages.

56922. The Plassey Company Limited. Improvements in and relating to electronic apparatus and method of manufacturing such apparatus. (March 29, 1955.) The method consisting in forming a sequence of connectors, assembling said connectors with parts arranged at intervals, locating circuit components with their conductive terminals arranged in at least two lines and connecting said parts to said terminals.

MARCH 28.

56923. Career Corporation. Absorption refrigeration systems. Means such as pump are provided for supplying weak solution from absorber to generator.

56924. John Summers and Sons Limited and R. L. Willott. Improvements in or relating to the burning of fuel for the generation of heat. (March 29, 1955.) Generating heat by separately discharging primary air and fuel in proximity to refractory surface to burn as sheet of flame.

56925. United States Rubber Company. Fungicide and method of making same. (May 6, 1955.) Desulfurising polymeric bis thiuram disulphide.

56926. Societe Des Usines Chimiques Rhone-Poulenc. New antibiotic substances and processes for the preparation thereof. (January 2, 1956.) [Addition to No. 52357.] Subjecting solution of spiramycin to treatment in counter current distribution apparatus employing as phases aromatic hydrocarbon or

chlorinated hydro carbon and a salt solution buffered to pH 6 to 7, and isolating constituents from organic phase fractions.

56927. Tomlinsons (Rochdale) Limited. Improvements in or relating to wire card raising machines for textile and other fabrics. Providing a device adapted to indicate when the rollers are being driven at appropriate speeds to give zero raising action.

56928. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to stud-welding guns having stud locating means. (April 21, 1955.) Comprising a plunger having a stud holding chuck and means urging the plunger to move towards the stud and into engagement with a workpiece to which the stud is to be welded.

56929. James Mackie & Sons Limited. Improvement in and relating to cop winders and roll winders for textile fibres. (March 29, 1955.) Comprising a detector lever bringing into action of a stopping mechanism on breakage or running out of the yarn and a tensioning member yieldingly gripping the yarn.

56930. The Permutit Company Limited. Improvements relating to the production of ion exchange resins. (March 29, 1955.) Copolymerising a compound containing one polymerisable double bond with a cross-linking agent.

56931. Takeda Pharmaceutical Industries Limited. Improvements in or relating to preparing α -kainic acid and its derivatives. By exciting the molecular energy by heating of corresponding β -kainic acid and β -allokainic acid.

56932. Maschinenbau-Aktiengesellschaft BALCKE. Packing for cooling towers. The cooling tower has packings made of coconut fibres.

56933. D. N. Chaudhuri. Improvements in or relating to sandals, slippers and the like footwear. Comprising sole and upper, the upper being of strings or laces adapted to pass through series of bores in sole.

56934. Void.

56935. Council of Scientific and Industrial Research. Manufacture of ethylene dichloride. [Addition to No. 51958.] By passing ethylene and chlorine in a vertical tube reactor and ethylene dichloride cooled to 80-120° F is showered from the top.

MARCH 29

56936. Void.

56937. C. S. Rao. Improvements in or relating to ticket tubes. Providing a cylindrical rack capable of revolving about its vertical axis and on which tickets bins are arranged circularly.

56938. Societe Des Usines Chimiques Rhone-Poulenc. Improvements in or relating to antibiotic substances. By subjecting spiramycin or a constituent or salt thereof to hydrogenation.

56939. G. C. A. Alric. Method for finishing a knitted fabric and knitted fabrics obtained thereby. Locking the free meshes of a knitted fabric by causing at least one transverse thread to pass through said meshes so as to act like a key to prevent any revelling.

56940. Gevaert Photo Producten N. V. A process for improving the dyeability of polymeric material. (March 30, 1955.) Reacting at least part of nitrile groups of the polymer with hydroxylamine.

56941. Societe Carbochimique, Societe Anonyme. Process on manufacturing non conglomerating ammonium sulfate and products resulting therefrom. Incorporating less than 0.1 per cent. by weight of a poly-ethylene glycol in ammonium sulphate crystals.

56942. J. F. Williams. Hopper device for feeding insecticides and other powders. Comprising a hopper from which the powder flows into a flow chamber bounded by reticulated discs at the upper and lower ends so that on rotation of the discs, the powder will be delivered from the hopper into the flow chamber.

56943. Hoover Limited. Improvements relating to carpet cleaning devices. Including pairs of opposed jaws which may be guided to travel into and out

of contact with the carpet and which are closed when adjacent the carpet to grip litter on it and pull it away from the carpet and subsequently opened at a point removed from the carpet.

56944. D. Napier & Son Limited. Combustion turbine power units. (April 7, 1955.) Comprises a compressor and a power turbine disposed on opposite sides of combustion chamber, a power unit reduction gearing casing of which is connected to turbine casing strong stresstaking struts.

56945. Compagnie Francaise Des Matieres Colorantes. Improvements in colouring preparations and in the coloration of cellulosic textile material therewith. (March 1, 1956.) Comprising metalliferous complexes of dye-stuffs with diazoamino derivatives obtained by condensing diazo or tetrazo derivatives of amines with anthranilic acid derivatives.

56946. I. I. Pinkel. Improvements in crash resistant seat. A floor engaging member and a body supporting member joined by elastic means.

56947. The Goodyear Tire & Rubber Company. Improvements in friction composition and material for use with brakes. Mixture of carbonized and uncarbonized friction elements comprising binder and friction imparting filler.

56948. Lonza Elektrizitatswerke Und Chemische Fabriken Aktiengesellschaft. An electrolyser. Partitions are sheet metal discs with smooth edge and a central area whereon a plurality of protuberances are pressed.

56949. Four Oaks Spraying Machine Company Limited. Improvements relating to liquid spraying machines. (March 31, 1955.) Comprises a hose reel provided with a hub, rotatably mounted on a tubular axle which is arranged above liquid tank and communicating with pump and hub bore leading to hose pipe.

56950. F. Schild and R. J. Wicker. Process for the manufacture of monohalogenated diethylaminoacetyl-2:6-dimethyl-anilides. Reacting halogenacetyl-2:6-dimethylanilide with diethylamine.

56951. Standard Telephones and Cables Limited. Improvements in or relating to intelligence storage devices. (April 1, 1955.) Comprises a storage element, a compensating element, a input conductor and a reading conductor.

56952. Chinoin Gyogyszer Es Vegyeszeti Termekek Gyara R. T. Process for separating the optically active isomers from racemic threo- β -(p-nitrophenyl)-serine-methylesters. By fractional crystallisation of the d-tartaric acid salt of racemic threo- β -(p-nitrophenyl)-serine-methylester and isolating the free methylesters of the optically active isomer by acidic or alkaline hydrolysis.

56953. "LICENCIA" Talalmanyokat Ertekesito Vallalat. Process for obtaining aromatic amine derivatives. By reacting an aromatic amine in a solvent with a betaine acid halide in the presence of acid-binding agents.

56954. "LICENCIA" Talalmanyokat Ertekesito Vallalat. Process for obtaining anilide derivatives. By reacting an anilide with a tertiary amine in the presence of a solvent.

56955. Void.

MARCH 31.

56956. Imperial Chemical Industries Limited. Treatment of wood pulp to render it resistant to fungal attack. (April 5, 1955.) Incorporating therein halogen substituted 1-halo-4:6-dinitro benzene.

56957. Void.

56958. The Indian Oxygen & Acetylene Company Private Limited. Improvements in or relating to the removal of combustible waste deposits from the internal surface of a metal tube, conduit or the like. (April 6, 1955.) Initiating ignition of waste deposit, maintaining combustion of deposit by directing jets of oxygen against successive portions of deposit until deposit has been ignited.

56959. The Indian Oxygen & Acetylene Company Private Limited. Improvements in or relating to the treatment of fumes in steelmaking operations.

(April 29, 1955.) Confining the fumes within a limited space above the surface of the molten metal, drawing off the fumes from limited space and delivering them into the lower part of the blast furnace.

56960. United States Steel Corporation. Method of electroplating aluminium and electrolyte therefor. [Addition to No. 54520.] Electrolyte comprising—Aluminium chloride—60-90 per cent. Alkali metal chloride—9.5-39.5 per cent.—Alkali metal fluoride—0.5-7 per cent.

56961. Jaybee Group Investments (Proprietary) Limited. Improvements in burners for vaporised liquid fuel. Comprising an enclosed pressurised chamber arranged to be heated by the flame of the burner and by the priming flame.

56962. Imperial Chemical Industries Limited. Process for the refining or beneficiation of the isomers of benzene hexachloride. (April 4, 1955.) Causing a solution of α and γ -isomers in a state of metastable supersaturation in respect of γ -isomer, to flow upwardly through a crystallisation vessel wherein it crystallises isothermally in presence of large surface of γ -isomer.

APRIL 2.

56963. S. M. Kapur. Combined box and folding base for hand sewing machines. Accommodates a hand sewing machine in non-operative condition and provides a base in working position.

56964. Ramsey Corporation. Piston or packing ring. Comprising compound ring including a steel ring and a cast iron ring in juxtaposition, a spring expander within compound ring, cast iron ring having an outer peripheral quick-wearing edge to engage adjoining cylinder wall and hard outer peripheral edge of the steel ring providing wear resistant bearing surface, the steel ring having an inner peripheral surface initially spaced from spring expander to insure rapid wear of said edge and quick seating of cast iron ring.

56965. The Permutit Company Limited. Improvements in ion-exchange process and apparatus therefor. (April 7, 1955.) Wherein thrust applied during interruption of liquid flow moves bed into a circuit in transversing which it is regenerated to reach opposite end of bed.

56966. Daimler-Benz Aktiengesellschaft. Improvements relating to engine-cooling arrangements in motor vehicles. (February 1, 1956.) Comprises one or more radiators disposed beside the engine and supplied by cool air from blowers.

56967. Elektro-Motoren A. G. Electric motor. Of the kind having a disk shaped short circuited rotor disposed in facing relation with the pole faces of the stator.

56968. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Glycinamide derivatives and process for preparing the same. Reacting substituted haloacetamide with secondary amine.

56969. Schlumberger Well Surveying Corporation. Apparatus for logging earth formations traversed by a borehole. A source of high energy mono-energetic neutrons and a neutron moderator partially enclosing the source; the earth formations are irradiated with neutrons.

APRIL 3.

56970. B. Svirskis. Magnetic separator. (April 12, 1955.) Consisting of a rotor which is rotatable between magnetic poles and a table on to which a slurry of the material to be treated is fed, a section of said table passing between the rotor and one of the poles.

56971. Unilever Limited. Flavouring substances and their preparation. (April 7, 1955.) Reacting a pentose or hexose monosaccharide with cysteine or cystine.

56972. Morris Motors Limited. Hydraulically-operated brakes for vehicles. (April 16, 1955.) Means effecting permanent pressurization of brake fluid in and adjoining wheel cylinders to predetermined extent sufficient to raise its boiling point above maximum temperature attained during brake operation.

56973. J. D. Robertson. Improvements in sheet material accumulating apparatus. Consisting of a pivotally supported accumulator having an inclined wall portion, means for feeding sheet material to the accumulator and means for tilting said accumulator about its pivot.

56974. Mela-Maschinenbau Und Reparatur Hanns Stinnes. Process and furnace for the melting of glass. Wherein for purification molten glass is drawn apart to form heated film.

56975. PECHINEY Compagnie de Produits Chimiques et Electrometallurgiques. Improvements in chloride-fluoride baths for igneous electrolysis. Treating the bath with a substance capable of exerting a strong fluorinating action for transforming oxygenous compounds into fluorides.

56976. The Firestone Tire & Rubber Company. Improvements in tire bead grommet and method of making same. (October 26, 1955.) Plurality of layers of single ribbon of rubber insulated wire wound flat upon itself in several convolutions the radial inner surface of the grommet being free from ends of the ribbon.

56977. D. B. Spalding. Improvements in or relating to pressure exchangers. (April 22, 1955.) Comprises cells, ducting and sports so proportioned that at working pressure, a centred wave system is created in cells.

56978. D. Napier & Son Limited. Combustion turbine power units. (April 7, 1955.) Gearing arranged within a casing disposed on the side of the power turbine remote from the compressor and a torque transmitting coupling which does not support any substantial weight.

56979. Hoover Limited. Improvements relating to clothes wringers. (April 20, 1955.) Including upper and lower frame members for carrying upper and lower rollers which are capable of relative movement against the action of a spring having a quick release device.

56980. Babcock & Wilcox Limited. Improvements relating to cyclone furnaces. Having ports in the peripheral wall of the furnace chamber adapted for discharge tangentially with respect to the peripheral wall of the primary air carrying solid.

56981. Wild-Barfield Electric Furnaces Limited. Improvements in the production of atmospheres for the gaseous cementation of ferrous alloys. [Addition to No. 53478.] Selecting ethyl alcohol as the monohydric aliphatic alcohol for producing cementation atmospheres.

56982. M. Vltavsky. A Hydraulic control device for resistance seam-welding machines. Comprises a slide valve to control the pressure on welding rollers, switching of electric motor to drive rollers and switching in of electric welding current circuit.

56983. M. Vltavsky. Hydraulic device for the drive of resistance seam welding machines. Is characterised by the fact that a welding roller or plurality of welding rollers are driven by one or a plurality of hydraulic motors.

56984. Void.

56985. Void.

56986. W. M. Weil. Treatment of titanium dioxide ores. Titanium dioxide ores containing iron oxide is mixed with carbon and heated in the absence of air, to convert ore residue into porous sintered mass and chloridising it to obtain iron free titanium oxide concentrate.

APRIL 4.

56987. G. Marchioli and G. Gremigni. Process for forming in a mould, from a plastic material, hollow bodies of non-uniform cross-section by means of an inflatable inner bag and yieldable elements which can be threaded on said inner bag. Applying on inflatable body annular yielding element inside diameter of which is substantially greater than outside diameter of inflatable body, inflating inflatable body, applying mouldable material over the assembly of inflatable body and annular element, introducing whole in the mould and inflating the inflatable body further.

56988. Void.

56989. Simon-Carves Limited. Improvements relating to coal or ore washing plants. (April 25, 1955.) Comprising a centrifugal type separator or cyclone to which raw material and medium of correct density are supplied.

56990. Chas. Pfizer & Co. Inc., Therapeutic compositions. Comprising one of the compounds 21-hydroxypregnane-3, 20-dione, 3- α -hydroxy pregnane-20-one, 3-d 21 dihydroxy-pregnane-20-one. 3 β -hydroxy-pregnane-20-one, and 3 β -21-hydroxy pregnane-20-one and a carrier.

56991. The Indian Oxygen and Acetylene Company Private Limited. Improvements in or relating to arc welding electrodes. (April 7, 1955.) Individual wires forming the sheath are secured together by a metal to metal joint at each point of contact between them.

56992. Parke, Davis & Company. Process for producing α -phenyl-succinimides. Reacting phenylmaleic anhydride with methylamine and reducing the double bond in the N-methyl- α -phenyl-maleimide.

56993. Parke, Davis & Company. Process for producing di-phenyl succinimides. Reacting phenyl maleic anhydride with methylamine at a temperature below 45° C. reducing the double bond in the reaction product and heating the resultant reaction product.

56994. S. Darwish. Direction signalling or indicating devices for cycles, motor cycles and like velocipedes. A pair of indicator arms are operated by a chord.

56995. Montecatini Societa Generale Per L'Industria Mineraria E. Chimica. A process for manufacturing phosphoric esters of substituted umbelliferones and pesticidal compositions obtained thereby. A halide of an O, O-dialkylthiophosphoric acid is reacted with an alkali metal salt of a phenolic heterocyclic compound.

56996. Societe Pour L'Union Des Transports Ferroviaires Et Routiers. Transporting vehicle for carrying rolling loads. Trolleys have fellies running on a running track mounted on the chassis with means on each trolleys for securing the rolling load to it.

APRIL 5.

56997. W. Just. Small container for highly colouring or caustic liquids. A closure part having a collecting space is removably affixed to the neck of a container.

56998. P. C. Mistry. Apparatus for preparing and serving hot drinks and the method thereof. Comprising a plurality of chambers provided with heating means, a mixing means, a storage cup to hold the prepared drink, and a counting device to record the number of cups served.

56999. Societe Anonyme De Traverses En Beton Arme Systeme Vagneux. Composite railway sleeper of reinforced concrete of the so-called vagneux type with axial bracing bar. (September 26, 1955.) Each end portion of the bracing bar has two cut out portions adapted to receive coachscrew like rail fastening means.

57000. Void.

APRIL 6.

57001. N. Takita. Improvements in bolster in a spinning machine. Bolster having oil reservoir in a spinning frame, level of oil can be seen because of transparency of container material and the reservoir is filled without removing the bolster.

57002. Daimler-Benz Aktiengesellschaft. Improvements relating to the suspension of leaf springs on road vehicles. (January 17, 1956.) Bolt holding two rubber bushes has two stop shoulders formed by diameters of different dimensions.

57003. Daimler-Benz Aktiengesellschaft. Improvements relating to hydraulically acting axial piston machines. (February 9, 1956.) The control part of the housing contains control members adjacent cylinder block and constructed in one piece or more, is arranged to be rotatable about the longitudinal axis through certain angular range.

57004. A. L. L. Baker and H. C. Visvesvaraya. Means and method for stressing ties and reinforcing members in concrete. (April 7, 1955.) Provided with a stretched internal tie an end of which protrudes sideways into a pocket and is anchored against a wall.

57005. Sugar Research Foundation Inc., Production of fatty acid mono or di-esters of sucrose or raffinose. Treating sucrose or raffinose with fatty acid ester of non saccharide alcohol where said fatty acid has moiety of 6—30 carbon atoms.

57006. Void.

APRIL 7.

57007. Council of Scientific and Industrial Research. A process for the preparation of ethylene from ethyl alcohol. Passing superheated vapours of ethyl alcohol through a fluidised bed of activated alumina type catalyst at 600—750° F.

57008. Merck & Co. Inc. Improvements in or relating to the isolation and purification of the antibiotic novobiocin. An alkaline solution of novobiocin. An alkaline solution of novobiocin is acidified and novobiocin recovered.

57009. Made Cognate to application No. 56479.

57010. C. M. Sweet. A combined low-power gravity operated electric supply system incorporating an efficient reflector type reading lamp. Weight operated motor directly coupled to electric generator supplying power to projection type lamps.

APRIL 9.

57011. Void.

57012. Dalmia Cement (Bharat) Limited. Improvements in or relating to refractory and heat insulating bricks, blocks and the like. Mixing rice husk, fire clay and molasses, moulding and firing at 1200 to 1400° C.

57013. Council of Scientific and Industrial Research. A method for Pre-Treatment of Non-Coking, weakly coking and Semi-Coking coals for conversion to coking coals. Dielectric heating with high frequency electric waves

57014. L. B. Visenjou and A. E. Valongo. The treatment of vegetable nuts. (April 10, 1955.) Subjecting vegetable nuts to a flailing operation by flexible flails.

57015. Compagnie Francaise Des Matieres Colorantes. Improvements in and relating to optical bleaching agents. (March 9, 1956.) Reacting amine of the formula X-NH-alkylene-O-X, X being hydrogen, alkyl or hydroxyalkyl group, with partially hydrolysed products resulting from condensation 4:4'-diaminostilbene with cyanuric chloride or bromide.

57016. J. R. Geigy A.-G. Process for the production of new derivatives of mucic acid. Reacting tetra acetyl mucic acid dihalide with a secondary amine.

57017. Deep Dye Industries Inc. A process and apparatus for the application of coloured designs to pile carpeting and the like. Spreading the carpet over a plurality of receptacles, applying pressure on the carpet and feeding colour into each of said receptacles.

57018. Union Carbide Corporation formerly known as Union Carbide and Carbon Corporation. Metal arc welding. (January 16, 1956.) Arc shielding gas mixture contains 0.1 per cent to 50 per cent oxygen, the balance being argon or helium, and a welding current employed of such intensity as to deposit the electrode metal in the form of a spray.

57019. The English Electric Company Limited. Improvements in and relating to manually-operable electrical apparatus housed in a closed cubicle or behind a panel or switch board. (May 3, 1955.) Having a withdrawable

operating handle consisting of a shaft provided with a knob at one end, a panel of a housing of the apparatus being provided with a storage means for said handle.

57020. S. R. Sathe. Automatic draft and twist Governing Spinning Wheel, i.e., Charkha. Comprising a spinning wheel and a twister wharve both driven positively and working in co-ordination with each other so as to draw, twist and wind yarn continuously.

57021. Void.

57022. R. Hunault. Generating device for cold radiations. Consisting of an enclosure with two large-size walls, one of which at least is provided with an inside reflecting surface, means for.

57023. J. Stone & Company (Deptford) Limited. Improvements relating to electro-magnetic switches. (April 13, 1955). Comprises a leaf spring mounted at one end and subject to spring loading.

57024. Diamond Alkali Company. Molten caustic molten fatty substance metal treating process. Comprises of contacting a preheated metal with a molten alkali metal hydroxide and a molten fatty substance for conditioning the metal prior to deep drawing operations.

57025. Diamond Alkali Company. Heat treatment of molten caustic-molten fatty substance metal coating. Comprises of contacting a metal surface with a molten alkali hydroxide and a molten fatty substance in order to condition the metal prior to deep drawing operations.

57026. Fairbairn Lawson Combe Barbour Limited. Improvements in hackling or like machines. (April 12, 1955.) Comprising plurality of bars separated by rollers or spacers or both which are equipped with curved plates located to enclose the rolling surfaces.

APRIL 10.

57027. PECHINEY Compagnie de Produits Chimiques et Electro-metallurgiques. Process and apparatus for manufacturing calcium. Decomposing calcium carbide by heating in vacuum.

57028. E. Shipton & Company Limited. Improvements in or relating to extrusion machines particularly for the manufacture of bottles and other hollow articles from organic plastic materials. (April 12, 1955.) By blowing an extruded tube of the material within a mould wherein length of the tube extruded is automatically controlled by measuring means.

57029. The Firestone Tire & Rubber Company. Improvements in or relating to automatic width controller for continuous sheets. Comprising means presenting an arcuate surface to one face of said sheet, guide means to monitor each respective edge of said sheet and to move in response to changes in width of said sheet and means responsive to the movement of the guide means, to change the arc of said surface to present an arc of changing curvature to said sheet in response to changes in width of said sheet.

57030. The British Cotton Industry Research Association. Improvements in or relating to the preparation of textile fibres for use in the manufacture of textiles. Feeding to a constant rate take-off mechanism at a rate of input in excess and means for continuously removing accumulated surplus input not accepted by the said mechanism.

57031. Knud Abildgaard-Elling. Method of producing N-oxides of tertiary amino-alcohols and salts thereof. (April 18, 1955.) Void after publication. Wherein a tertiary amino alcohol is reacted with an oxidizing agent containing very loosely bound oxygen.

57032. Gebr. Vedder G.m.b.H. Improvements in and relating to electric switches. (February 27, 1956.) The connecting bars passing through slots in a base surrounding the contact system and the terminals are located in recess.

57033. Ciba Limited. New antibiotics termed 'cinerubin A' and 'cinerubin B' and hydrolytic cleavage products and salts thereof preparations containing the same and process for the manufacture of these substances. A strain of

the species *Streptomyces cinereoruber corbazetal* var *fructofermentans* is cultivated in nutrient medium and antibiotics are isolated therefrom.

APRIL 11.

57034. Imperial Chemical Industries Limited. Pharmaceutical compositions. [Divided out of No. 53079; ante-dated to November 6, 1954.] Comprising diethyl dithiol esters as active ingredients and pharmaceutical excipient.

57035. Westinghouse Brake & Signal Company Limited. Improvements in or relating to brake controlling devices for railway vehicles. (April 13, 1955.) Manual control means act on the deceleration-responsive means to vary the degree of deceleration necessary to open the contacts.

57036. Nicholas Proprietary Limited. Barbiturate pharmaceutical preparations. (April 20, 1955.) The preparation comprises a medicinal barbiturate and β , β -methyl ethyl glutarimide.

57037. Metropolitan-Vickers Electrical Company Limited. Improvements relating to dynamo electric machines. (May, 16, 1955.) Stator core mounted in a frame by resilient support bars extending axially between inwardly projecting ribs.

57038. A Gerard. Improvements in body compositions for ceramic. Body composition is prepared from siliceous component, a hydraulic cement and water.

57039. Void.

APRIL 12.

57040. P. C. Mistry. Improved machine and process for making chapattis, puris and the like. Comprising three rollers, one plain and others having holes fitted with pistons, plain roller being arranged to rotate in close contact with either of the perforated rollers.

57041. "Shell" Research Limited. Improvements in and relating to lubricating compositions. (April 14, 1955.) [Addition to No. 47506.] Comprising a mixture of a liquid ester, 2 to 50 per cent. of a hydrocarbon lubricating oil and a salt of an aromatic carboxylic acid or of a phenol with a metal of Group II of the Periodic Table.

57042. R. W. Miller, B. A. Miller and R. J. Harkenrider. Die and process for continuously extruding multiple tube structures. Die comprising plurality of interconnected pooling chambers defining multitubular pooling area with corresponding extrusion passages.

57043. International Combustion (Holdings) Limited. Improvements in or relating to travelling stokers for shell type boilers. (April 14, 1955.) Comprises a communicating passage to enable air to flow from front end of chamber through return run of stoker.

57044. International Combustion (Holdings) Limited. Improvements in or relating to travelling stokers for shell type boilers. (April 14, 1955.) Comprise communicating passages to enable air to pass from combustion chamber through return stroke of grate to take away dust.

57045. Hydrocarbon Research, Inc. Endothermic reduction of iron oxide. [Addition to No. 53732.] The gas to be passed in the bed is preheated to a temperature above that at which bed particles agglomerate.

57046. Societe Pour L'Union Des Transports Ferroviaries Et Routiers. Adaptors for landing gears of semi-trailer trucks. Rigid beam with clamps for the landing gear with wheels pivoted on the beam and positioned to run on a track.

APRIL 13.

57047. Merck & Co., Inc. Process for producing an acidic antibiotic and salts thereof. Cultivating streptomyces spheroides NRRL 2449 in aqueous nutrient medium under aerobic conditions.

57048. The Indian Oxygen & Acetylene Company Private Limited. Improvements in or relating to the separation of air. (May 31, 1955.) By compressing a major air stream to a low pressure, and a minor air stream to a high pressure and passing the latter in heat exchange relationship with the compressed liquid oxygen fraction.

57049. E. K. Cole Limited. Improvements in or relating to electrical inductance coils. (April 30, 1955.) Comprises a tabular former of non-metallic material fixed to a bracket, a tapped opening and a spindle of nylon.

57050. Titan Co. A/S. A process for producing a metallic iron concentrate and a titanium containing concentrate. [Addition to No. 51206.] Material containing iron and titanium is mixed with 2—6 per cent. of at least one alkali metal compound, calcining the mixture under reducing conditions at a temperature between 1100° C.—1200° C.

57051. Marconi's Wireless Telegraph Company Limited. Improvements in or relating to receiving aerial systems. (May 4, 1955.) Including one aerial portion adapted maximally to receive waves of one plane of polarisation, another aerial portion adapted minimally to receive waves of another plane of polarisation and means for producing in phase signals and combining them.

57052. Glaxo Laboratories Limited. Improvements in or relating to the preparation of steroid compounds. (April 22, 1955.) A mixture containing $\Delta 1:4$ -3-keto-steroids containing no reactive carbonyl group, with other 3-keto- $\Delta 1$ -3-keto- $\Delta 4$ -3 keto and/or $\Delta 4:6$ -3-keto steroids is reacted with Girard reagent T or P in a solvent to form derivatives with the other steroids and $\Delta 1:4$ -3-keto-steroid is separated.

57053. The British Internal Combustion Engine Research Association. Flame-trap to limit the effects of explosions. (April 18, 1955.) Structure, coated with a substance which on vapourisation quenches the flame, is provided with perforations for rapid passages of gases.

57054. Boots Pure Drug Company Limited. New sulphur containing compounds, process for their preparation, and acaricidal compositions containing the same. (April 27, 1955.) By reacting benzoxazole 2-thial with a benzyl halide in the presence of an alkaline condensing agent.

57055. Megator Pumps & Compressors Limited. Improvements in or relating to rotary pumps, compressors or other machines. (April 15, 1955.) Covers fitted in the form of a beam or cantilever, which is slidable.

57056. J. C. De Vasconcelos. Process for extracting oils from almonds, cashew-nuts and like oil-seeds, and apparatus for carrying out the process. Extracting by action of ultra frequency microwaves.

APRIL 16.

57057. S. G. Ekbote. Saddle for bicycles and similar vehicles. Main and secondary riding surfaces, mounted on a swivel arm at the rear and a roller at the front the main surface being held taut by tension spring at the front portion.

57058. Dorr-Oliver Incorporated. Multitray Clarification Apparatus. Comprising a cylindrical tank divided by trays, each having an opening into a feed compartment and at least one subjacent set of superposed settling compartments comprising an upper clarification compartment and a subjacent clarification and thickening compartment.

57059. L. B. Visenjou and A. E. Valongo. Improvements in the shelling of nuts. (April 16, 1955.) Void after publication. Impinging nuts against target moving in direction opposite to that of nuts.

57060. The Indian Oxygen and Acetylene Company Private Limited. Mixer tube and handpiece union for welding blowpipes. (April 20, 1955.) Comprising a mixer tube and handpiece union for welding blow pipe having a spigot on the outlet end of the handpiece having a bore and a counter bore into which two gas passages respectively.

57061. The Indian Oxygen and Acetylene Company Private Limited. Flame tip or nozzle welding blowpipes and method of making it

(April 20, 1955.) Making a flame tip for welding blow pipe by inserting a tip sleeve as a close fit inside the outlet end of a blow-pipe tube.

57062. D. J. O'Sullivan and E. Lefebure. Improvements in or relating to methods of copy production on paper and transfer sheet for use therein. (April 22, 1955.) By bringing into superimposed relationship two sheets of paper, one having impressions of a composition consisting of a colourless complex and other coated with an oxidising agent capable of reacting with the complex.

57063. Sterling Drug Inc. Improvements in whitening and brightening agents of the benzimidazolystilbene series. 4,4'-bis (benzimidazol-2-yl) stilbenes are prepared by heating an aminoanilide, by interacting a cyclic anhydride of a 1,2 dicarboxylic acid with an oxyalkylated stilbene or by alkylating a suitable stilbene compound.

57064. The A. P. V. Company Limited. Process for the treatment of effluents from synthetic resin plants. Subjecting to counter current extraction using a solvent for phenolic substance and thereafter subjecting residual liquor to distillation.

57065. Didier-Werke A. G. Charging of coke furnace chambers. Tapering part of the charging containers is oscillation excitable so as to produce a vibration during discharge.

57066. Void.

57067. British Telecommunications Research Limited. Improvements in and relating to phase-modulators. (April 29, 1955.) [Addition to No. 45148.] Comprises a phase modulator having two networks one network having a resistive impedance element of resistance A and the other network having a resistive impedance element of resistance aA and a reactive impedance element $\pm ajY$.

57068. G. W. Edwards and R. Sevin. Improvements in or relating to mixing apparatus. Including a mixing device rotatable at high speed, and simultaneously caused to move along a circular path about an axis displaced with respect to the axis of rotation.

57069. G. W. Edwards and R. Sevin. Improvements in or relating to mixing head for mixing, dispersing or emulsifying apparatus. A rotor including a plurality of blades having vanes which co-operate with at least one stationary disc to set up a shearing effect.

57070. G. W. Edwards, and R. Sevin. Improvements relating to grinding mills. Wherein means are provided for applying a hydraulic or pneumatic pressure to the adjustable wheel to maintain a constant predetermined grinding pressure.

57071. G. W. Edwards and R. Sevin. Improvements in or relating to grinding mills. Wherein the treated product issuing from grinding wheels passes via a space through which air or vapour is caused to flow.

57072. Ciba Limited. Process for splitting racemates. Bicycle-alicyclic compounds with groupings reducible with the formation of a new centre of asymmetry are subjected to reducing enzymes of cultures of microorganisms and at least one of the optically active products is isolated and if desired dehydrogenated

APRIL 17.

57073. Void.

57074. N. V. De Bataafsche Petroleum Maatschappij. Process for the polymerization of vinyl chloride in aqueous emulsion, if desired together with other ethylenically unsaturated compounds, as well as the resulting polymers and articles manufactured therefrom. Introducing H_2O_2 into emulsion having a pH between 8.5 and 11 and containing carboxylic acid salt with 8-22 carbon atoms as emulsifier.

57075. N. V. De Bataafsche Petroleum Maatschappij. Process for the separation of fractions with different properties from mixtures of fine porous catalyst particles, according to the sink and float technique. Subjecting first

to one sink-and-float method of separation in which particles are directly contacted with separating liquid and then to another sink and float method in which particles are previously filled with a liquid other than separating liquid.

57076. N. V. De Bataafsche Petroleum Maatschappij. Process for the removal of organic halogen compounds and other heavy water-immiscible liquids from porous catalysts containing these liquids. Catalysts containing heavy liquid is mixed with a volume of water equal to the volume of heavy liquid to be displaced.

57077. Arcon (Proprietary) Limited. Improvements in and relating to portable prefabricated building structures. (April 29, 1955.) A building structure of the three pin frame type made up of leg frames and roof frames of triangulated construction.

57078. Daiichi Seiyaku Co. Ltd. A process for producing isonicotinic acid hydrazide-N-sodium methanesulfonate. The hydrazide and sodium oxy-methane sulphonate are warmed in water, the solution concentrated to a syrupy liquid and after cooling the same acetone, alcohol or dioxane is added.

57079. The Geigy Company Limited. New or improved alkylene glycol complex esters. (April 26, 1955.) Heating together saturated aliphatic, aromatic dicarboxylic acids, alkylene glycol and at least one saturated aliphatic monohydric alcohol in absence of esterification catalyst.

57080. Westinghouse Brake & Signal Company Limited. Double wire mechanical control systems such as for example controlling railway points. (April 21, 1955.) First and second control levers manually operable to operate a mechanism over same pair of transmission wires, locking means preventing operation of either of the levers unless the other control lever is in its normal unoperated position and a coupling device coupling the transmission wires to the mechanism such that throwing of either control lever operates the mechanism.

57081. Westinghouse Brake and Signal Company Limited. Improvements relating to double wire mechanical control systems, such as for operation of railway signals. (April 21, 1955.) Selective control of one or other of two rotary mechanisms utilising but one control lever and a single pair of transmission wires extending from the lever to location of mechanisms.

57082. Societa's Farmaceutici Italia. A process for the production of cobalamines by fermentation of culture broths with nocardia Sp. (nocardia rugosa.) A micro-organism of Nocardia species is fermented in a nutritive broth.

57083. Montecatini Societa Generale Per L'Industria Mineraria E. Chimica. High molecular weight polymers of acetylenic hydrocarbons and process for preparing them. (March 12, 1956.) Polymerising acetylenic hydrocarbons in the presence of a catalyst obtained by treating a compound of a metal of 4th to 8th groups of the periodic system with an organo metallic compound.

57084. Cognate with application No. 56669.

57085. Ciba Limited. A new antibiotic and cleavage products thereof and preparations containing the same and process for the manufacture of these substances. Wherein a strain of streptomyces exhibiting the properties of streptomyces echinatus nov. sp. is aerobically cultured.

57086. Ciba Limited. New process for the manufacture of reserpine and/or deserpidine. Treating with thiocyanic acid, separating alkaloid-thiocyanate, converting same into free base and isolating reserpine by crystallization.

57087. Ciba Limited. New process for the production of a pure alkaloid known as deserpidine. A mixture of reserpine and deserpidine is treated with a nitrosoating agent and deserpidine is separated from the nitrosoation product.

57088. L. R. Simmons. A tractor-trailer unit. Comprises a draft member connected pivotally at front end with tractor and rear end with trailer, elongated strut with articulate connections at front and rear ends with tractor and trailer and inclined forwardly to transfer weight on trailer to all wheels of tractor.

57089. Nicol & Andrew Limited. Metal cutting, grinding or honing machine. Comprises a bed, carriage coupled to an operating head and winches to operate the carriage by compressed air.

57090. VEB Spinn-und Zwirnereimaschinenbau Karl-Marx-Stadt. Steam heated heating cylinder particularly for rayon spinning and processing machines. A steam chamber is provided by the introduction of a second cylinder within the heating cylinder and a helical steam guide is placed between the inner wall of the heating cylinder and the outer wall of the second cylinder.

57091. Stahlgrüber. Otto Grüber and Co., Repair plug for repair of tubeless tyres and a process of repairing with such plugs. Vulcanized rubber repair plug with a hardness not more than 40 to 45 grade contains orthotolylbiguanide and coated with non-vulcanized rubber approximately .1 to .6 mm. containing sulphur.

57092. Institut for Schienenfahrzeuge. Pivotless bogie guide for railway carriage. One end of single leaf or leafs connected to carriage body while the other end is connected to collapsible parallelogram, which can turn on belts fixed to the bogie.

57093. Void.

APRIL 18.

57094. Bakelite Limited. Improvements in or relating to the bonding of metal to moulded compositions. Providing a barrier between the metal surface component and a mouldable composition comprising a filler and a bonding agent and also a layer of adhesive between the barrier and the metal component, then subjecting the assembly to moulding conditions.

57095. Bakelite Limited. Improvements in or relating to the bonding of metal in laminated products. Comprising sheets of fibrous material impregnated with a synthetic resin and as an inner layer or more metal sheets which method comprises building up the stock of the constituent sheets prior to consolidating it with heat and pressure.

57096. The English Electric Company Limited. Improvements in and relating to electric control systems. (April 26, 1955.) Including a control device producing voltage varying between a maximum and minimum value according to setting of first control member, an auxiliary control means responsive to second control member arranged to vary the difference between said maximum and minimum values, a range of settings of first control member giving reduced sensitivity of control device and the value of control voltage.

57097. Simmonds and Stokes (Niphan) Limited. Improvements relating to electrical cable couplings of plug and socket type. (April 28, 1955.) Moulded rubber casing receiving an insulator is provided with a zone.

57098. American Cyanamid Company. Antibiotic and preparation thereof. (February 13, 1956.) A nutrient medium is fermented with *streptomyces* T-3018.

57099. British Telecommunications Research Limited. Improvements in or relating to telephone systems. (February 15, 1954.) [Divided out of No. 53783; ante-dated to February 12, 1955.] Employs a register device of the magnetic drum type for determining the operation of a calling party's meter.

57100. Parke, Davis & Company. Antibiotic and methods for obtaining same. Inoculating a sterile nutrient medium with *streptomyces rimosus* forma *paromomycinus*.

57101. Taymouth Industries Limited. Head for power operated fastener driver. (April 28, 1955.) Comprises housing having a body with fastener receiving chamber adaptor member for attachment to a driving tool, interconnecting means for body and adaptor.

57102. T. Sjoman. Improvements in valves. Comprises a valve body with co-axial openings and seating in between cylindrical valve member with openings to permit flow through.

57103. Void.

APRIL 19.

57104. D. Delerue. Thread guide for cop winder. A rotatable thread guide having a helicoidal frame for reciprocating the thread to form the conical winding of the cop.

57105. Void.

57106. Union Carbide and Carbon Corporation. Shielded metal arc welding process. (January 10, 1956.) Forming an electric arc between a metal electrode and a workpiece feeding the electrode toward the workpiece to maintain the arc, and shielding the welding zone with a stream of shielding gas with a suspension of granulated welding composition therein.

57107. The Dow Chemical Company. Improvements in or relating to aqueous dispersions of interpolymers and method of making the same. Comprising major proportion of non-ionizable vinyl aromatic compound and minor proportion of water-soluble salt of vinyl aromatic sulfonic acid.

57108. Nederlandse Organisatie Voor Toegepast-Natuur-wetens-chappelijk Onderzoek Ten Behoeve Van Nijverheid, Handel En Verkeer. Bath and process for dyeing textiles. The bath comprises water, a vat dye in the non-reduced state, a reducing agent, at least 1 g.mol. of alkali hydroxide per 1 litre of the bath and an aldehyde in such a quantity that the value of bath potential at room temperature is lower, but at 100°C. higher than the leucopotential of the dye at the dye-concentration used.

57109. N. Rosedale and C. A. Rosedale. Improvements in or relating to the production of hollow articles from thermoplastic materials. Comprising a hollow moulding tool and a heating tool of same shape wherein the moulding tool is placed within the heating tool.

57110. The Permutit Company Limited. Improvements in the production of copolymers. (April 28, 1955.) A bis (2-haloalkyl) ketone, a compound containing a polymerisable double bond and a salt of a weak acid are reacted together a polymerisation catalyst being present for at least the latter stages of the reaction.

APRIL 20.

57111. C. Venkateswarlu, M. Satyanarayana and Dr. M. N. Rao. A continuous process for the improvement of catalytic vapor-phase esterification. Providing a packed fractionating column in addition to the catalytic reactor.

57112. N. V. De Bataafsche Petroleum Maatschappij. Process for the preparation of fungicidal supermetallic associates. Reacting alkylated organic carboxylic or sulphonic acid in hydrocarbon/alcohol medium with hydroxide of heavy metal having an atomic number between 24 and 31, followed by evaporation of alcohol and conversion of heavy metal oxide to oxide by dehydration.

57113. N. V. De Bataafsche Petroleum Maatschappij. Process for the preparation of solutions of oilsoluble basic salts of organic acid in oily media, which do not gel with water vapour. Adding to oil-soluble basic salt of organic acid in oily medium, a compound soluble in oily medium and containing polar group.

57114. C. W. Packer. Improvements in or connected with lubricating, spraying, painting and like apparatus. Comprises a gun and pressurised tank, the gun having a barrel, fluid inlet and a non-return valve in a spray nozzle and spring mean to urge a spike rod in an extension towards the nozzle.

57115. S. G. Young. Improvements in the manufacture of electroplated spring metal. Electroplating spring metal with another metal and then subjecting it to heat treatment to harden and tempering it.

57116. L. F. Wiggins. Manufacture of cattle feeds from molasses. (April 21, 1955.) Void after publication. The feed comprises an aqueous ammoniated sugar-containing material having a pH 3-6.

APRIL 21.

57117. C. F. Boehringer & Soehne G.m.b.H. Process for the production of threo-1-(p-nitrophenyl)-2- dichloroacetyl-amino-propan-1:3, diol 6-phenyl-5-bromo

1:3-dioxane is treated with NH_3 , the product dichloroacetylated, then nitrated and the nitro compound is split up by acetolysis and then finally saponified.

57118. L. Ringdal. Cartridge. Providing a second case of synthetic resin material with a similar case tightly in engagement with it and cartridge base extension.

57119. Johnson & Johnson, Adhesive tape dispenser. (November 19, 1955.) Comprising a pair of spaced side walls a hub for rotatably supporting a roll of tape, a platform to which a length of tape pulled from the roll will adhere when adhesive side is brought into engagement with it and a knife movable to allow withdrawal of a tape length, to a second position to sever the tape adhered to the platform.

57120. Rockware Glass Limited. Improvements in or relating to the purification of silica sands. (August 8, 1955.) Treating sand with sulphuric acid solution and in organic chloride.

57121. Centre National De La Recherche Scientifique. Process for producing graft polymers. Subjecting polymer to ionizing radiation in presence of oxygen and contacting irradiated polymer with grafting material capable of being polymerized by free radicals.

57122. A. P. Sidhwa and T. P. Sidhwa. Improvements in or relating to building blocks. Building block comprises an outer layer of cement concrete and an inner layer of light weight insulating concrete.

APRIL 23

57123. Void.

57124. Chas. Pfizer & Co., Inc. Steroids and the preparation thereof. [Divided out of No. 54358; ante-dated to April 27, 1955.] 21-hydroxypregnane-3, 20-dione or 21-hydroxy allopregnane-3, 20-dione is reacted with an acylating agent.

57125. Chas. Pfizer & Co., Inc. Steroids and the preparation thereof [Divided out of No. 54358; ante-dated to April 27, 1955.] Desoxycorticosterone is hydrogenated with hydrogen in the presence of palladium-on-calcium carbonate catalyst.

57126. Conte. New composition for the manufacture of pencils. [Divided out of No. 55384; ante-dated to September, 10, 1955.] Comprising finely divided wood fibres, casine, borax, higher fatty acid, emulsifier, preserving agent and colouring agent.

57127. Ames Irrigation Pty. Limited. Improved mill and method for manufacturing tubes and product thereof. Forming strip into cylindrical shape with edges flanged outwardly tubing said flanges, welding and coldworking these down to thickness of tube wall.

57128. Metallgesellschaft Aktiengesellschaft. Process of refining hydrocarbons. Conducting hydrogen containing gas through hydrogenation catalyst at temperatures between about 50°C . and 500°C .

57129. J. Moolenaar. Manually closable seal. Consisting of two integral box shaped sections adapted to be brought into closing position by bending them together.

57130. H. J. Elliott. Improvement in or related to the separation of sulphur, from sulphur ores flotation concentrates or originally refined pure sulphur contaminated by waste. Sulphur is treated with calcium chloride solution.

57131. Standard Telephones and Cables Limited. Frequency diversity radio telegraph system. Two or more carrier waves are simultaneously modulated by the same telegraph signal and transmitted to the receiver where said signal is separately recovered from each carrier and combined after adjustment of delay.

57132. Creed & Company Limited. Telegraph printer comprising a message paper cutter. Comprising normally stationary gripping rollers spaced from platen, means for guiding leading edge of strip for engagement by rollers, a stationary blade transverse to the strip and having a cutting edge projecting into path of strip between platen and rollers and means for actuating the rollers

to grip and pull the strip during stationary period of line feed mechanism, such that strip is tensioned across the cutting edge.

57133. Cable Covers Limited. Improvements in or relating to terminating clamps. (April 27, 1955.) Jaw members consist of a cone or collet which is split into segments and grooved around the periphery.

57134. Void.

57135. Goetzewerke Friedrich Goetze Aktiengesellschaft. Beaded metal gasket. Consisting of a core of sheet steel to each face of which a thinner sheet of soft metal is fixed.

57136. Sandvikens Jernverks Aktiebolag. Improvements in tool holders and cutter for lathes and the like. Comprise a shank with a channel, means for adjusting a cutter therein and clamping the same against a ridge.

57137. J. Ram. Washable umbrella hat. A strong wire is inserted in the outer-periphery of the shade brim of the hat to keep the brim radially stretched out.

APRIL 24.

57138. Captain S. R. Gupta AMC. Improvements in or relating to water closet. Triangular pan with opening at apex connecting via pipe dipping in water, to second pot having an overflow opening.

57139. Void.

57140. Union Carbide and Carbon Corporation. Welding process employing shielded metal arc. (January 13, 1956.) The end portion of electrode and welding zone is surrounded by a gas containing powdered welding composition.

57141. Imperial Chemical Industries Limited. Synthetic polymers. (May 10, 1955.) By bringing a compound having a conjugated diene unsaturation into contact with material formed by reacting together at least one substituent of non-transition metal of groups 1 to 3 of periodic system with at least one higher covalent halide of molybdenum or tungsten or of a transition metal of groups 4 and 5 of periodic system.

57142. American Cyanamid Company. Substituted haloacetyl piperazines and method of preparing same. Reacting N-substituted piperazine with mono or dihaloacetyl chloride.

57143. The English Electric Company Limited. Improvements in and relating to guide bearings. (May 10, 1955.) Comprises a groove in bearing pad in communication with oil sump through ball valve and interstitial space through an outward opening spring valve.

APRIL 25.

57144. Automatic Telephone and Electric Company Limited. Improvements in carrier transmission systems. (May 7, 1955.) Has a plurality of filter circuits at the transmitting terminal.

57145. Telefonaktiebolaget L. M. Ericsson. Device for pressure-tight end-sealing of cables. Comprises exterior sleeve of solderable metal sealed at one end by insulating material as neoprene or polyethylene.

57146. Hoover Limited. Improvements relating to hand irons. Comprises a sole plate having one or more openings in it and a flexible pipe, connected to air under pressure for delivering it through these openings for smooth movement thereof.

57147. J. Dungler. Web guiding head. Rolls four rolled in frame and controlled by separating means adapted to move rolls away from each other as the frame pivotally mounted on the support, is tilted by action of tensioning means against action of frame urging means.

57148. C. G. Munters. Apparatus for changing condition of a medium. by means of another medium. Which includes a body located within a casing and composed of layers or sheets providing interspaces within which the two media are brought into direct contact with each other.

57149. P. Guislain and B. Guislain. Improvements in or relating to buildings. Adjoining blocks provided at their upper part with grooves into which concrete is poured to bind the blocks.

57150. M. Meth. Method of producing a copper plated silvered mirror. Depositing silver on the plate and spraying copper sulphate solution and metal dust thereon.

57151. N. V. Phillips' Gloeilampenfabrieken. Methods of producing means for combating micro-organisms. Alkoxy acylaminophenyl trichloro methyl thiol sulphonate is admixed with an inert carrier.

57152. California Spray-Chemical Corporation. Stabilization of chloro-organic compounds and stabilized compositions containing said compounds. Incorporating minor proportion of neutral organic ester of acid of phosphorus.

57153. K. Karch. Erosion and flood control and land reclamation. Comprises a water barrier having a spillway and a conduit positioned beneath the barrier.

57154. Carlo Erba S.p.A. Halogeno-derivatives of α -amino-ketones. α -dichloroacetamido- β -chloro-acrylophenone is reacted with HCL.

57155. Void.

APRIL 26.

57156. Monsanto Chemical Company. Process of treating spinnable textile fibers for reducing slippage and increasing tensile strength of yarns formed from such fibers. Fibers treated with aqueous colloidal dispersion of silica containing average particles between 250 and 800 millimicrons.

57157. A. G. Lucey. Improvements in and relating to pin and needle grinding machines. Wires pressed against grind stone from two oppositely disposed working heads from opposite direction.

57158. A. Borland Limited. Improved constructional element. (May 5, 1955.) One flange has two parallel longitudinal rows of elongated slots, round holes and, inclined slots and the other slot having a single row of slots and holes.

57159. Martin & Harris (Private) Limited. An improved process for the manufacture of acetyl-salicyclic acid. Wherein the acetylation of salicyclic acid is carried out in batches, the mother liquor of one batch being used for acetylating a fresh batch of salicyclic acid.

57160. Void.

57161. Void.

57162. Void.

57163. Ciba Limited. A new process for the preparation of reserpine and compounds similar thereto. Isomerizing 3-iso-reserpine in acid medium.

57164. W. Hartmann & Co. Metal window. Comprises a steel casing, window casement with two sealing rails of which outer sealing rail having a plastic strip in a groove in it, the strip being three times thicker in uncompressed state.

57165. Void.

57166. V. A. P. Corporation Private Limited. Improvements in or relating to digestors. Firebox fitted to the base of a jacket surrounding the vessel.

APRIL 27.

57167. N. V. De Bataafsche Petroleum Maatschappij. Novel pentachlorophenol compositions. The composition comprises up to 30 percent. of pentachlorophenol, 1-15 per cent. of aliphatic alcohol, 3-20 per cent. of polar organic substance, 3-20 per cent. of an emulsifier of the group of polyoxyethylene sorbitan fatty acid esters and aromatic hydrocarbon mixture as base oil.

57168. J. Favard. Method of manufacturing tubing from strip-steel wound into a helix and tubing obtained thereby. Abutting edges of turns secured

by covering the external or internal face of the edges with an extra thickness of metal and welding, the extra metal having sufficient width and thickness to constitute a helical rib forming a reinforcing ferrule around the tubing.

57169. St. Anne's Board Mill Company Limited. Improved apparatus for de-watering pulp or stock on a fourdrinier type paper or board making machine. [Addition to No. 54201.] [Divided out of No. 54201; ante-dated to April 4, 1955.] Employing sloping waterways in combination with pneumatic means for removal of separated water passing upwardly the permeable upper member.

57170. St. Anne's Board Mill Company Limited. Improvements in or relating to apparatus for use in the making of paper or board. (May 18, 1955.) [Addition to No. 50069.] One further slice is arranged serially along the parallel section of the lower run.

57171. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Pyridylmethyl phosphate and preparation thereof. (April 29, 1955.) Treating pyridyl (3) methyl alcohol by treating it with a mixture of phosphorus pentoxide and phosphoric acid.

APRIL 28.

57172. Void.

57173. Void.

57174. General American Transportation Corporation. Improvements in or relating to chemical nickel plating. Comprising an aqueous solution of nickel ions and hypophosphite ions, the ratio between nickel ions and hypophosphite ions, in the bath expressed in molar concentrations being within the range 0.25 to 0.60.

57175. General American Transportation Corporation. Improvements in or relating to chemical nickel plating. Comprising providing an aqueous solution containing nickel ions and hypophosphite ions, wherein the ratio between nickel ions and hypophosphite ions in the solution is within a first predetermined range and the absolute concentration of the hypophosphite ions in the solution is within a second predetermined range.

57176. General American Transportation Corporation. Improvements in or relating to chemical nickel plating. Comprising an aqueous chemical nickel plating solution of the nickel cation-hypophosphite anion type having a predetermined composition characterised by stability and a low plating rate at a temperature within a first given range disposed well below the boiling point thereof.

57177. General American Transportation Corporation. Improvements in or relating to chemical nickel plating. Exposing a fresh roughened surface of the body having secured thereto dispersed growth nuclei consisting of minute particles comprising a catalytic material, immersing the body in a bath of aqueous solution of nickel salt and a hypophosphite.

57178. General American Transportation Corporation. Improvements in or relating to chemical nickel plating. Plating bath comprises an aqueous solution containing nickel ions, hypophosphite ions and a dipolar additive capable of forming a hydrophobic film on solid surfaces.

57179. General American Transportation Corporation. Improvements in or relating to chemical nickel plating. Bath consisting essentially of an aqueous solution of a nickel salt and a hypophosphite and a complexing agent and a separate and different exalting additive.

57180. General American Transportation Corporation. Improvements in or relating to chemical nickel plating. Bath comprising an aqueous solution of nickel ions, hypophosphite ions, lactic ions wherein the concentration of hypophosphite ions in the bath expressed in mole/litre is within the range 0.13 to 1.20.

57181. General American Transportation Corporation. Improvements in or relating to chemical nickel plating. Immersing body in a hot aqueous

nickel plating bath of nickel cation-hypophosphite anion type, and contacting the body with a light gas dispersed in the plating bath.

57182. General American Transportation Corporation. Improvements in or relating to chemical nickel plating. Comprising an aqueous solution of a nickel salt and a hypophosphite which is circulated from the exterior into a plating chamber and then back to the exterior, maintaining the solution in the plating chamber at a temperature in the range 90° to 100° C.

57183. General American Transportation Corporation. Improvements in or relating to chemical nickel plating. Chemical nickel plating bath comprising nickel ions, hypophosphite ions, acetate ions, ammonium ions and orthoboric acid, the concentration of nickel ions being at the range of 0.07 to 0.10 mole/litre.

APRIL 30.

57184. Y. S. Prakasarao. Telugu typewriter. A major portion of dead keys are provided on one side of the key board.

57185. Societe Des Forges Et Ateliers Du Creusot. Device for the control of the opening of a sluice gate. Comprising a duct branched off from upstream basin, a reception well receiving water from the duct, lateral aperture in reception well, having a profile such that water level in well varies according to predetermined law in function of mass flow of water deriving from duct, a control float in reception well and a connection between the control float and the gate.

57186. Babcock & Wilcox Limited. Improvements relating to grabber cranes. (May 3, 1955.) Device operable by the grab closing motor effects starting of the grab holding motor at the termination of the grab closing movement.

57187. Dunlop Rubber Company Limited. Improvements in or relating to annular rim seals for tubeless pneumatic tyres. (May 19, 1955.) Annular rim seal of flexible resilient rubber extends across width of each of the bead to be gripped between them and the rim with an inflation valve attached to it.

57188. The Indian Oxygen & Acetylene Company Private Limited. Improvements in or relating to the separation of gas mixtures for example air. (May 12, 1955.) Producing balancing stream by compressing minor part of gas mixture, isentropically expanding same and rectifying in conjunction with major part.

57189. Societe Anonyme De Machines Electrostatiques. Improvements in or relating to circuit arrangements for stopping electrostatic generators. Comprises an electrostatic which produces a capacitive discharge.

57190. Heinrich Koppers Gesellschaft mit beschränkter Haftung. Process for Producing Valuable Gaseous Hydrocarbons. The initial material and the hot heat carrier gas are mixed while the latter has a high flow velocity and the mixture is led into a reaction chamber.

57191. J. G. Jessel. Improvements in or relating to apparatus for dispensing beverages. (May 4, 1955.) Comprising measuring chamber communicating by separate valves with reservoir and delivery device, the valves controlled by means actuated by placing of receptacle under the delivery device to bring about opening of one valve and closing of the other valve.

57192. Modern Plastic Machinery Corp. Improved method and apparatus for the treatment of plastic materials. By contacting the surface of an organic thermoplastic material with a dielectric material in the presence of a varying electric field.

57193. California Research Corporation. Demetallization of hydro-carbon fractions. Contacting hydro-carbon fraction in presence of hydrogen in pressure of a catalyst at elevated temperature and pressure.

57194. Mrs. Beryl Alice Enid DePenning. Method of refining iron. Blowing pure oxygen on the surface of molten metal at such rate that refining is completed in 15 to 30 minutes.

57195. Motoren-Werke Mannheim AG. vorm Benz Abt. stat. Motorenbau. Improvements in or relating to compression ignition engines. Insert piece with a small central aperture and a number of separate passages disposed annularly.

57196. Schlumberger Well Surveying Corporation. Perforating apparatus for well perforating operations. Comprises shaped explosive charge from forward end of which emanates a perforating jet upon detonation of said charge and having a member of explosive material in the path of the jet.

57197. Ciba Limited. Process for the manufacture of dimidazole derivatives. Condensing aromatic orthodiamine with thiomalic or aspartic acid.

MAY 1.

57198. Linotype and Machinery Limited. Improvements in and relating to printing machines and the like. (May 3, 1955.) Back roll feeder including automatic synchronising means.

57199. Imperial Chemical Industries Limited. New quinoline derivatives. (June 3, 1955). By reacting substituted pyrimidine with substituted quinoline or reacting the latter with a mineral acid or salt thereof or a quaternary salt farming agent.

57200. National Research Development Corporation. Improvements in or relating to the recovery of gold from aqueous cyanide. (May 6, 1955). Treating gold bearing aqueous cyanide liquor with anion exchange resin.

57201. A. H. Hunt (Capacitors) Limited. Improvements in or relating to electrical capacitors. (May 3, 1955.) Of the kind wound from metallised dielectric strip material.

57202. Farrand Optical Co. Inc. Position measuring transducer. (January 11, 1956.) Comprises two inductively related relatively movable members a first multiplicity of series connected conductors.

57203. Ateliers De Constructions Electriques De Charleroi. Improvements in sound recording apparatus. Record advanced step by step and a recording head moved across it in reverse during periods of rest of record, a second recording head moving across another receiving surface, the movements of both heads controlled by a coupling device and both heads energised simultaneously, or one head at a time energised for recording successively upon two faces of double faced record.

57204. S. Smith & Sons (England) Limited. Improvements in intelligence recording devices. Intelligence recorded upon a permanently magnetisable body at a location whose position is a function of the intelligence.

57205. Brown, Boveri and Company Limited. Process and apparatus for coating with magnetic powder a metal wire which serves as an arc-welding electrode. A metal wire which serves as electrode is coated with magnetic powder.

57206. Dr. C. Otto & Comp. G.m.b.H. Collector for washing liquids from a spray saturator. With lower portion with downwardly and inwardly inclined sides provided with an outlet, duct as inlet for washing liquor below liquid surface and means to circulate the same.

57207. Inventio Aktiengesellschaft. Improvements in or relating to elevators. A coupling is disposed between driving motor and a hoist engine and means are provided to control the torque of the coupling.

57208. Dr. L. Lipsey. Electric contact materials and methods of making the same. Having a metallic substance for matrix, which is more conducting electrically than iron and containing one additional substance taken from the group of carbides and metal oxides.

57209. P. Beckmann. An apparatus for the lubrication of machines or other equipment driven by compressed air. A hollow member embraces an oil container so arranged therein that oil is drawn from container into the stream of compressed air.

57210. K. Klager. A tool for plastering corners of walls and the like. Tool constructed similar to joiner's plane and comprises angular sheet with

recesses edges of which remove unevennesses in the plaster, excessive plaster passing through the recesses.

57211. Ciba Limited. Process for the manufacture of Reserpine Acid and its Esters and compounds similar thereto. Treating 3-isoreserpine acid salt with dehydrating agent and splitting the lactone ring thus formed with hydrolyzing or alcoholizing agent.

57212. Hercules Powder Company. Improvements in or relating to process for polymerizing ethylene. By contacting ethylene with a catalyst comprising a compound of a metal of Group IVB, V-B, VI-B or VIII of Periodic Table or manganese with an organo metallic compound in the presence of a haloalkane.

MAY 2.

57213. Automatic Telephone & Electric Company Limited. Improvements in call queuing arrangements for telephone systems. (May 24, 1955.) Each circuit is provided with an equipment on which is stored an indication of the position of the queue.

57214. A. H. Hunt (Capacitors) Limited. Improvements in or relating to electrical capacitors. (May 3, 1955.) Wound from flexible dielectric strip material bearing metallisation to constitute electrodes.

57215. British Dielectric Research Limited. Improvements relating to ceramic dielectric materials. (May 24, 1955.) Containing barium titanate, a minor proportion of calcium zirconate and up to 1 per cent. by weight of magnesium oxide based on the total weight of barium titanate and calcium zirconate.

57216. The British Rayon Research Association. Improvements in or relating to the dyeing of fabrics, yarns and the like. (May 7, 1955.) Passing material under treatment into dyebath containing dyeing assistant and dye and heating the material to fix the dye.

57217. The British Rayon Research Association. Improvements in or relating to the drying of filaments, fibres, threads or the like. (May 10, 1955.) [Addition to No. 54439.] Passing filaments through bed of hot solid discrete particles while the bed is subjected to an upward gaseous current.

57218. Aktiebolaget Bofors. Vacuum plane filtering apparatus for continuous operation. In which the filtering stuff is fed to a plane, circular stationary filter through a rotating diffusing device over the filter.

57219. Aktiebolaget Bofors. Apparatus for continuous processing of two liquid systems of different specific gravities which do not mix with each other. Consisting of a processing vessel provided with a stirrer and a rotating drum open at both ends with the lower end immersed in the liquid and upper end connected to means for training off liquid.

57220. L. B. Visenjou and A. E. Valongo. Improved process for the treatment of cashew nuts to recover their valuable constituents. (May 25, 1955). Void after publication. Seasoning cleaned raw nuts to humidify drying and receiving oil therefrom separating shells from kernels and peeling the kernels.

57221. C. Laval, Jr. Apparatus for photographic objects immersed in light diffusible liquid. Camera means, a light source and a light shield interposed between the camera and the light to avoid the radiation of light directly into the camera.

57222. Tootal Broadhurst Lee Company Limited. Improvements in the formation of aldehyde condensation products. Containing acid salt of polybasic acid having a first dissociation constant in water of not less than 10^{-6} , with a metal of which a less acid salt with same polybasic acid precipitated before said acid salt on removal of solvent by heating the solution.

57223. Associated Lead Manufacturers Limited. Improvements in flame-retarding compositions for application to fabrics. (May 9, 1955.) Flame-retarding composition comprising a dispersion in water of 10-20 per cent. of antimony trioxide, 30-50 per cent. of plasticizer and the rest polyvinyl chloride

57224. Associated Lead Manufacturers Limited. Improvements in flame-retarding compositions for application to fabrics. (May 9, 1955.) Flame retarding composition consisting of a dispersion in water in suitable proportions of polyvinyl chloride, antimony trioxide and a plasticizer.

57225. Unilever Limited. Improvements in or relating to the de-aeration of liquids. (May 6, 1955). Introducing liquid in a vessel under vacuum and destroying foam on the surface of liquid by sweeping a member over whole surface in close proximity.

57226. F. Humblet. Improvements in breathing apparatus. Breathing mask made of transparent material with warning device in the pressure reducing device.

57227. Houdry Process Corporation. Method of preparing attrition resistant alumina particles. Impregnating alumina trihydrate with nitric acid solution and subjecting the particles to mechanical pressure and heating the particles at 600° F.

57228. Standard Telephones and Cables Limited. Improvements in or relating to panels for mounting electrical components. (June 20, 1955.) Panel in which electrical components mounted on one surface connected to circuit members on the opposite surface by leads passing through holes in panel and soldered to circuit members and in which supports for the components also pass through holes in the panel and are soldered to anchor plates on same surface of the panel as the circuit members.

57229. Standard Telephones and Cables Limited. Antenna system. [Addition to No. 55532.] Consisting of a vertically polarised antenna, helices of conducting material disposed parallel to the plane of the antenna and means to rotate said strips about the antenna.

57230. Dr. Ing. L. Mueller. Improvements in or relating to piles. (June 27, 1955.) Comprising a hollow shaft, a wedge shaped foot secured to the lower end of the shaft, the upper cross-sectional area of the foot being greater than the cross-section of the hollow shaft and the foot being formed with cutlet openings at its upper end whereby concrete may be forced under high pressure.

57231. The Singer Manufacturing Company. Sewing machine with feed throw-out mechanism. Bobbin-winder thread spool pin for sewing machine unified with feed throw-out mechanism, the location of the unit being convenient for the operations.

57232. Daimler-Benz Aktiengesellschaft. Improvements relating to bearings particularly in hydrostatic transmissions. (August 2, 1955.) At least one of the two bearing surfaces has parts of harder material.

57233. Daimler-Benz Aktiengesellschaft. Improvements relating to gear-changing mechanism for motor vehicles. (January 13, 1956.) An arm fixedly mounted on the transmission rod is provided with a sliding part at each of two points.

57234. Daimler-Benz Aktiengesellschaft. Improvements in motor vehicle axle suspensions. (March 8, 1956.) Half axles are articulated on the vehicle superstructure on both sides of the axle centre.

57235. Dr. E. Engel. Process for removing constituents of cokeoven gas. By compressing the gas, cooling it to a temperature 25° C. to separate a part of hydrocarbons and naphthalene and subsequently cooling it to a temperature -20°C. to -50°C. to separate residual benzol and naphthalene.

57236. Farbenfabriken Bayer Aktiengesellschaft. Process for the production of sheet-like structures from polymer emulsions. (March 5, 1956.) Admixing aqueous emulsion of copolymer containing carbonyl, carboxyl or carbonamide groups with water-soluble resin forming formaldehyde condensation product.

57237. N. H. Persson. Adjustable socket spanner. Is characterised by a connecting rod longitudinally displaceable in the shank bore by an adjustment member at rear and connected to movable jaw at front.

MAY 3.

57238. Void.

57239. D. Napier & Son Limited. Control apparatus for aircraft propulsion units embodying variable pitch constant speed airscrews. Proper pitch adjustment maintained by corresponding power output is attained by means of an inter connection between pitch control apparatus and power control mechanism.

57240. Westinghouse Brake & Signal Company Limited. Improvements relating to systems for the detection of railway track switches. (May 17, 1955.) Each stock rail has a detector rod connected to it at a point adjacent the part against which the switch tongue abuts, relative movements between the rods causing to open normally closed electric circuit.

57241. Westinghouse Brake & Signal Company Limited. Improvements relating to railway signal control systems. (May 24, 1955.) Operation of floating lever from its normal position to operated position necessitating the operation of both the double wire operating mechanisms.

57242. Westinghouse Brake and Signal Company Limited. Improvements relating to empty-load vacuum braking systems for railway vehicles. (May 26, 1955.) A delay valve device connected between the train pipe and the lower chamber of the "load" brake cylinder.

57243. Merck & Co. Inc. Process for preparing piperidine compounds and their derivatives and salts. β -(p-aminophenyl) ethyl halide reacting with 4-phenyl-4-carboethoxypiperidine.

57244. General American Transportation Corporation. Improvements in or relating to lined containers. The container is made of a material which comprises nickel, phosphorus and a liner for the wall of the container.

57245. The General Electric Company Limited. Improvements in or relating to electrical gas discharge tube counting or distributing circuits. (May 10, 1955.) Including at least two input leads, at least two control devices connected to the input leads, a separate signal carrying lead connected to each control devices and a plurality of gas tubes connected in cascade to form a chain.

57246. Rodi and Wienenberger Aktiengesellschaft. Improvements in and relating to flexible link bands, particularly watch bracelets. (February 28, 1956.) One of two outer walls of sleeves provided with slot transverse to direction of expansion of band and adapted for inserting portions of connecting members of box like shape extending into the sleeve; bottom walls of connecting members offset relative to adjacent sleeves to the extent of the width of one-half sleeve closely engage with outer walls and two adjacent sleeves.

57247. Void.

57248. Walzwerk Neviges, Willy H. Schlieker & Co. Process and apparatus for improving the qualities of sheet metal for use particularly in electrical equipment. The sheet after it is rolled, is subjected to magnetisation all along its length in the course of its process of manufacture.

57249. Void.

57250. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Process for the manufacture of vitamin A acetate. 3, 7-dimethyl-9-(2, 6, 6-trimethyl-1-cyclohexen-1-yl)-2, 4, 7-nonatrien-1, 6-diol is treated with isopropenyl acetate and the product converted into Vitamin A acetate.

57251. Takeda Pharmaceutical Industries, Ltd. A method for preparing kainic acid and its derivatives. By treating a substituted pyrrolidone compound with a lower alkyl halogenide and degrading the product obtained.

57252. Weco Products Company. Method of treating nylon bristles and products produced thereby. Dipping filaments in a solution containing for every 100 milliliters of water 80 to 100 milliliters of water soluble alcohol from 4 to 10 grams of a phenyl mercuric salt and 2 grams of boric acid.

57253. Fairbairn Lawson Combe Barbour Limited. Improvements in flyers for textile spinning machines. (June 18, 1955.) Comprising a flyer leg member, a wharve and a hand grip, both the flyer and hand grip being fixed to the wharve by junctions carried in each of the three sections.

57254. Fairbairn Lawson Combe Barbour Limited. Improvements in stop motions for textile machines. (June 18, 1955.) Includes a sliver breakage detecting device a part of which on yarn or sliver breakage engages with a roller forming part of a drafting zone and frictionally driven, the said engagement causing the roller to stop rotation.

MAY 4.

57255. C. G. Beard and R. P. Urs. Improvements in or relating to cement compositions. Comprising a mixture of ordinary portland cement and cyanide slime from gold mining industry.

MAY 5.

57256. Void.

57257. Void.

57258. J. Handley. Improvements in perforating apparatus for perforating the elements of a signal combination. (May 5, 1955.) Comprises cam means moving a spring-held lever holding armature of relay to release armature, and means for selectively operating the perforating punch.

57259. I. R. Dunlop. Improvements in paper backings for pressure-sensitive tape. (August 20, 1955.) Void after publication. Comprises a backing of paper layer and an adhesive mass coated on the surface of said backing.

57260. Merck & Co. Inc. Novel piperidine compounds and process of preparing the same. Reacting 4-phenyl-4-carboalkoxy piperidine compound with β -phenyl ethyl halide.

57261. Svenska Turbinfabriks Aktiebolaget Ljungstrom. Improvements in method of and means for cleaning the water tubes of heat exchangers. Compressed air or gaseous medium admitted to the liquid at a pressure higher than that of the liquid.

57262. National Research Development Corporation. Improvements in or relating to the recovery of gold from aqueous cyanide solutions. (December 16, 1955.) Bring cyanide solution in contact with anion exchange resin which is predominantly weakly basic in character but contains minor proportion of strongly basic quaternary ammonium group.

57263. Rohn & Haas Company. Quaternary ammonium compounds. One mole of tris-(dimethylaminomethyl)-phenol is reacted with 1-3 moles of a quaternising compound having 10-21 carbon atoms and containing a reactive anion.

57264. Metalastik Limited and Watsham's Limited. Improvements in or relating to cable spacers for multi-conductor electrical overhead transmission lines. (May 7, 1955.) Comprises a link and a pair of clamps hinged to the link.

MAY 7.

57265. Void.

57266. Sulekha Works Ltd. Cleansing solutions for fountain pens, Stylo-Pens and like writing instruments. Comprising mineral acids like hydrochloric acid, organic acid like oxalic acid, organic solvents like ethyl alcohol.

57267. Council of Scientific and Industrial Research, and The President, Forest Research Institute and Colleges, Dehra Dun. An improved process for the treatment of bamboo to further its utilization in the manufacture of pulp paper, board or the like. Subjecting to mechanical disintegration to separate fibres and "fines" fractions, the "fines" being parenchyma plus part of fibre component.

57268. Council of Scientific and Industrial Research. A process for the preservation of sweet toddy (Neera) obtained from palm trees. Adding

"Paludrine" (Trade Mark for N'-p-chlorophenyl N-5 isopropyl biguanide) to Neera.

57269. N. V. De Bataafsche Petroleum Maatschappij. Compositions suitable for use as hydraulic fluid. Comprising a water-in-oil emulsion containing an oil-soluble polyvalent metal sulphonate and an at least partially oil-soluble partial ester.

57270. American Steel Foundries. Improvements in coupling arrangements for tractor-trailer vehicles. A Fifth wheel assembly includes a wheel plate having a slot for receiving a king pin and a locking mechanism for retaining the king pin in operative position.

57271. The Goodyear Tire & Rubber Company. Improvements in brakes having compressed air return means therein. Control piston in auxiliary cylinder secured to brake lining and fluid pressure means to move control piston and brake lining to clearance position when brake is released.

57272. The Goodyear Tire & Rubber Company. Improvements in brake having deflection compensating means therein. Hollow centered piston, an adjusting pin with restrained movement parallel to piston axis and sealing ring between the head of pin and piston and hydraulic brake actuating means.

57273. Glaxo Laboratories Limited. Improvements in the production of mutants of the genus penicillium, and the antibiotic griseofulvin resulting therefrom. (May 16, 1955.) By culturing the parent strain in a nutrient mutation medium wherein the assimilable sulphur source is in the form of radio active sulphur isotope of mass number 35.

57274. R. Turbot. Interengaging hollow bricks and structure made up of such bricks. Ribs extending from transverse end walls of hollow brick; central recess bounded by two vertical surfaces parallel with ribs and equidistant from them adapted to engage ribs of adjacent bricks of following row of bricks.

57275. Crompton Parkinson Limited. Devices for use in brazing processes. Comprising a housing having an opening for receiving a brazing pin and having a terminal receiving recess.

57276. The British Rubber Producer's Research Association. The production of rubber/polymer compounds and mixtures from rubbers and polymerisable compounds. Cold mastification of natural or synthetic rubber oxygen free condition with proportion of polymerisable olefinic compounds.

57277. General Electric Company. Cordless electric synchronous clock. Including a pick-up device or antenna for deriving a small alternating voltage from either the electric or magnetic induction field existing in the vicinity of commercial alternating power supply media such as house wiring derived A. C. voltage controlling the clock motor.

57278. Ocrietfabriek N. V. Method for increasing the resistance to chemical corrosion of concrete articles by means of gaseous SiF_4 . The articles free from free chalk and containing silicates and/or hydrosilicates are treated with SiF_4 in dry condition.

57279. S. Bianchi and R. Lacour. Improvements in or relating to a machine for the production of continuous elements of reinforced plastic material. Comprising means for feeding continuously juxtaposed wires, means for coating said with plastic material, means for distributing in form of a tube, the wires thus coated, means for hardening coating material.

57280. Elastic Rail Spike Company Limited. Improvements in or relating to a device for use in the laying of railway tracks. (May 16, 1955) Non-round sleeve with an eccentric bore, the sleeves being held tightly in the hole of the sleeper.

MAY 8.

57281. Void.

57282. Walzwerk Neviges Willy H. Schlieker & Co. Device for measuring the magnetizing losses in metal sheets employed for electrical purposes.

Comprising a measuring coil arrangement which is connected in series with a weighing machine provided with a potentiometer, feeding of the magnetizing winding of the measuring coil arrangement is effected with a measuring voltage.

57283. Void.

57284. Stephenson Corporation. Devices for facilitating breathing and producing artificial respiration. Comprises a hollow casing having a gas administering chamber and a second chamber.

57285. Stephenson Corporation. Two stage gas pressure regulator. Comprises high pressure, intermediate pressure and low pressure chambers.

57286. Fisons Pest Control Limited. Improved fungicidal preparations containing a basic copper salt. (May 18, 1955). Alkaline earth metal carbonate particles coated with a basic copper salt film.

57287. Glaxo Laboratories Limited. Improvements in or relating to the preparation of steroid Compounds. (May 16, 1955.) Void after publication. 17- α -hydroxy-20-keto-21-acyloxy steroid is reacted with a salt of a compound R^1NH , in the presence of a tertiary amine ($R^1 = -NHCONHR^2$ or $-OR^3$, R_2 being hydrogen, alkyl benzyl or phenyl group).

57288. The English Electric Company Limited. Improvements in and relating to electric switchgear. (May 13, 1955.) Sliding shutters operatively connected to each other and actuating member movable in correspondence with movement of the circuit breaker.

57289. The English Electric Company Limited. Improvements in and relating to electric fuse-holders for outdoor mounting. (May 13, 1955.) Fuse holder provided with two downwardly directed cable outlet apertures situated side by side on the holder.

MAY 9.

57290. I. Ebrahim. Improved devices adapted to operate a cycle dynamo. Consisting of a disc fitted by clips to the spokes of the cycle said disc having a hole in the centre and having frictional surface engaging a pulley of the dynamo to be driven.

57291. V. K. Govinda Menon. Improvements in filaments for electric lamps. Plurality of filaments are connected in parallel between the leading-in-wires.

57292. A. R. Narayana Rao. A high voltage contact jaw assembly for electric switches. Consisting of flexible contact jaws in which each jaw comprises contact rods, tubes or like of circular cross-section and working under spring pressure to give uniform and smooth line contacts for full width of movable contact blade.

57293. Void.

57294. Union Carbide and Carbon Corporation. Magnetic powder dispenser. (February 7, 1956.) [Addition to No. 57140.] The dispenser has a powder hopper which communicates through a magnetic drums with the mixing chamber.

57295. Electraulic Presses Limited. Control mechanism for hydraulic presses. (May 11, 1955.) Stroke control means embodied with a tapped rod fitted with a number of hydraulic pistons aligned in series co-axially.

57296. Zenith Radio Corporation. Improvements in or relating to apparatus for producing high temperatures. Comprising means for developing concentrated magnetic field encompassing a reaction space and means for producing a cloud or plasma of ions in said reaction space in the presence of said magnetic field.

57297. LeTourneau-Westinghouse Company. Improvements in or relating to field current supply system for an alternator. Means operable independently of the load current flow produce initial voltage across the a-C input circuit of the rectifier and of magnitude to compensate for rectifier voltage drop at no load field current to condition the rectifier for immediate conduction upon application of load.

57293. Hunter Engineering Co. Improvements in or relating to casting machine and continuous casting process. Continuously causing confronting portions of roller surfaces to move upwardly in converging relation to a point of minimum spacing and then diverge and maintaining a body of molten metal in the bight between upwardly moving converging surfaces and in contact therewith.

57299. Rohm & Haas Company. Quaternary ammonium compounds. Two moles of tris-(dimethylaminomethyl) phenol are reacted with one mole of a compound $R'X_2$ and from zero to four moles of a compound RX (R' =bivalent quaternising group; R =monovalent quaternising group; X =anion).

57300. The General Electric Company Limited. Improvements in or relating to refractor members for lighting fittings. (May 20, 1955.) Of the kind having the form of a surface of revolution about an axis, carrying light directing elements extending in radial planes containing said axis.

57301. General Steel Castings Corporation. A railway truck frame transom. [Divided out of No. 53137; ante-dated to November 15, 1954.] Railway truck frame transom having a wide upper portion extending from end to end and a coextensive lower portion of upright web section.

57302. Lane-Wells Company. Improvements in or relating to well perforators. Comprising a body of high explosive material formed with a forwardly facing metal lined concavity and upon detonation from a high velocity forwardly moving gaseous perforating jet.

57303. National Cylinder Gas Company. Preservation of cellulosic materials against deterioration and attack from organic agent of decay. Impregnating with cupric formate by heating to above 100°C .

MAY 10.

57304. M. Ponnusamy. A device for arresting speed of train. Trip mechanism comprising hooks and sleeves move the disc valve operating lever to allow air to rush into the vacuum train pipe and thereby arrest the speed of the train.

57305. Metropolitan-Vickers Electrical Company Limited. Improvements in alternating current electric traction equipments. (May 16, 1955.) Of the kind in which the direct current energisation is obtained from a.c. supply by means of a static rectifying means.

57306. Mechanical Products, Inc. Improvements in and relating to electric circuit breakers. Of the kind in which a thermal element is mounted for movement with respect to a relatively fixed abutment along with fixed movable contacts corresponding to a circuit the opening of which is effected automatically due to the thermal element freeing itself from engagement with its abutment and releasing movable contacts.

57307. Mechanical Products, Inc. Improvements in and relating to electric circuit breakers. Including a split casing enclosing fixed and movable contacts, with movable contacts being electrically connected with a thermal latch device.

57308. Societe Triflux. Improvements in and relating to gaseous discharge tubes. Provided an energy transmission line between the oscillation generator and the discharge tube.

57309. Societe Triflux. Means for feeding electrical discharge tubes and the like by high frequency current. High frequency is generated by a generator to the output winding of which is coupled an impedance.

57310. Ames Irrigation Pty, Limited. Frame for a frame and shutter construction, particularly for use in irrigation pipe lines. Pipeling having apertures provided with shutters slidable across the said apertures.

57311. Gevaert Photo-Producten N. V. Process for making hectographic reprints and photographic material therefor. Reproduction made on light sensitive material with silver halide emulsion, containing no or little coloured water insoluble component, image developed by tanning so that positive relief

counter part image of original is formed as a matrix which is brought to contact reprint paper in the presence of reprint liquid, the matrix and/or reprint paper and/or reprint liquid containing separately or in combination products for converting colour component into dyestuff.

57312. International Combustion (Holdings) Limited. Improvements in or relating to apparatus for feeding fuel to furnace grates. (May 11, 1955.) Comprising means for supplying fuel to the feed tube, a device for injecting air under pressure into feed tube adjacent the point of entry of fuel and imparting motion to air.

57313. Light Carts. Agricultural implements. Is characterised by an attachment device comprising pair of U-shaped bolts, an end plate, sliding piece between said U bolts with notches to engage frame member and tool held between end plate and sliding piece.

57314. Veb-Maschinenfabrik Polysius. Conveyor weighing machine. Including pressure pistons each in a cylinder, one piston loaded by spring 9 and connected with a disc rotated by friction wheel so that according to weight on band fluid in cylinder is pressed which affects adjustment of friction wheel depending upon weight.

57315. The Tata Iron & Steel Co. Ltd. Process for manufacture of ferro-phosphorus from magnetic apatite rock. [Divided out of No. 55181; ante-dated to August 13, 1955.] By smelting a charge of phosphate rich non-magnetic portion of apatite rock, silicious rock, manganese and copper ores and coke breeze, and tapping the ferrophosphorous forming the bottom layer.

MAY 11.

57316. Societe Technique Pour L'Industrie Nouvelle S. A. "STIN". Train end indicating device. Transmitting unit mounted on last wagon includes a transistor generator produces oscillations to interact with a receiving coil.

57317. Compagnie Generale De Telegraphie Sans Fil. Comb type band-pass filters. (June 3, 1955.) Comprises a bar having two ends being magnetostrictive, coupling means and reflective means.

57318. Joest G.M.B.H. Vibration drive, especially for conveyor installations and screens. Comprises a pair of off-centre weights arranged so as to be oppositely rotatable.

57319. Imperial Chemical Industries Limited. Treatment of textiles Passing through trichloro ethylene or perchloroethylene for time not exceeding 5 minutes.

57320. Dunlop Rubber Company Limited. Cellular elastomeric materials. (June 22, 1955.) Forming a liquid or plastic composition comprising a polymer containing isocyanate or isothiocyanate groups, a cross-linking compound of high molecular weight and an inert gas.

57321. American Lead Pencil Company. Improvements relating to mechanical pencils. (June 20, 1955.) Comprising an elongated barrel, means for releasably retaining any one of different types of marking leads, a runner slidably mounted on and embracing the barrel, a plurality of discriminating indicia that denote the different types of lead impressed on and extending longitudinally along the barrel.

57322. Void.

57323. Void.

MAY 14.

57324. Automatic Telephone and Electric Company Limited. Improvements in telegraph receivers. (May 19, 1955.) Comprises a signal responding device controlled by the current flow through a thermionic tube.

57325. Imperial Chemical Industries Limited. Process for the treatment of boiler feed water. By adjusting the concentration of magnesium compounds present so that the value of the expression $\frac{100}{\text{CaO}} \left[\frac{\text{MgO}}{3} - \text{SiO}_2 \right]$ is greater than 4.

57326. Imperial Chemical Industries Limited. Treatment of cellulosic materials. (May 27, 1955.) By treating the cellulosic material with a

compound containing at least one 1:3:5-triazine ring containing certain substituents.

57327. Texaco Development Corporation. Hydrogenation of a solid carbonaceous material. Admixing carbonaceous material with vaporizable liquid, passing said mixture through heating zone, separating vapour from solid particles and subjecting separated solid particles to hydrogenation.

57328. Upton Electric Furnace Company. Fused bath electrical furnace. Electrode extending below bath surface with means to advance the same as the end is used up.

57329. Void.

57330. Oesterreichisch-Alpine Montangesellschaft. Process for the refining pig iron. Blowing a jet of oxygen from a nozzle vertically downwardly onto the surface of the metal, at a pressure of 75 Kg/Sq.cm. and about 0.02 Gg/Sq.cm.

57331. Ciba Limited. New isoquinolines, pharmaceutical preparations containing them and process for their manufacture. Reacting isoquinoline containing in 1-position exchangeable substituent with polyethylene glycol or their mono-lower alkyl ether in presence of condensing agents.

57332. Montecatini Societa Generale Per L'Industria Mineraria E. Chimica. Process for preparing alpha substituted O, O-alkyl-dichiophosphorylactic esters with pesticidal activity. By reacting an ester of an alpha-halogen-substituted alpha-arylacetic acid with a dithiophosphate.

MAY 15.

57333. Olin Mathieson Chemical Corporation. Synthesis of alkaloids. Interacting 3-iso form of ester with mercuric salt and treating the 3-dihydro derivative thus formed with an electropositive metal.

57334. "Shell" Research Limited. Compositions for controlling plant growth. Comprising an organoboron compound, a non-solvent carrier and/or a surface active agent.

57335. Linotype and Machinery Limited. Improvements relating to Sheet-Feeding Apparatus for a Printing Press. (May 18, 1955.) Characterised by a locking device for swinging gripping system, in inoperative position, having a stop element carried by the cross shaft and a plunger to engage the stop element.

57336. Carrier Corporation. Air conditioning systems. Control member regulate passage of secondary air through the heat exchange means in each section and piping to return medium from the heat exchange means to the first central station.

57337. Carrier Corporation. Nozzles for use in air conditioning units. Arcuate surfaces of two opposed planar surfaces joined by another arcuate surface extending from one to the other and surface connecting two planar portions provided with openings.

57338. Centre National De La Recherche Scientifique. Improvements in grafting polymers or copolymers. Subjecting polymer to ionizing radiation while in contact with at least one vinyl compound.

57339. Acrow (Engineers) Limited. Improvements in or relating to cantilever bracket, such as for use with builders' scaffolds. (November 15, 1955). The bracket comprises a vertical member, a horizontal member adapted receive scaffold boards and a bracing strut.

57340. T. Imamura. Improvements in a draft device of a spinning frame. Rove is pressed by light roller against the flat bar for free movement under force.

57341. Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey. Synthetic resins and a process for the manufacture thereof. Condensing diglycidyl ether with anhydride of organic diacid.

57342. Ciba Limited. Manufacture of a new aminobenzene sulphonamide. Preparing 3-(p-aminobenzene sulfonamido)-2-phenyl-pyrazole by methods known heretofore for manufacturing amino-benzene sulfonamide.

57343. E. Belik, M. Herold, and R. J. Daskocil. Process for fermentative production of antibiotics. The fermentation is carried out without maintenance of aseptic conditions in a medium containing at least 0.1 gamma/ml. of antibiotically active substances inhibiting the growth of microbial contaminants.

57344. E. Belik, M. Herold and R. J. Daskocil. Process for fermentative manufacture of combined agricultural preparations such as feed supplements. The process comprises the conjoint cultivation in a nutrient medium of a strain which is known to produce vitamin B-12 with a strain which is known to produce an antibiotic.

57345. T. J. Smith & Nephew Limited. Improvements in and relating to adhesive medical and surgical dressings. (May 26, 1955.) A patterned spread of solvent-based adhesive is applied to the porous backing of the dressing from a roller having shallow grooves thereon, to which the adhesive mass is supplied, in wet state at one circumferential zone.

57346. Beyer Peacock & Company Limited, and J. Hadfield. Improvements in or relating to pivot centres. (May 24, 1955.) Wearing element of the female member proceeds towards the male member for taking up wear by means of a horizontally movable wedge and helical spring.

57347. J. D. Robertson. Improvements in method and apparatus for twist detection and detwister control. Passing travelling rope-like body of flexible sheet material between and in engagement with two parallel independently movable members, pulling edges of the material laterally in opposite directions while leaving the members; rotation of the body tightening any twist effect opposite axial movements of the members to actuate detwister mechanism.

57348. Unilever Limited. Improvements in or relating to the stabilisation of soap compositions. (May 27, 1955.) Containing a compound of the

$$\begin{array}{c} R_1 \\ | \\ R_3-CO-NH-N \\ | \\ R_2 \end{array}$$

formula $R_3-CO-NH-N$, R_1 and R_2 being hydrogen, alkyl or acyl radical and

$$\begin{array}{c} R_1 \\ | \\ R_3-CO-NH-N \\ | \\ R_2 \end{array}$$

R_3 being alkyl, aralkyl or acyl radical.

MAY 16.

57349. British Telecommunications Research Limited. Improvements in or relating to telephone systems. (June 7, 1955.) Employs registers of the magnetic drum type for controlling the setting up of connections.

57350. Westinghouse Brake & Signal Company Limited. Improvements relating to vacuum brake cylinders. (May 24, 1955.) Piston rod passes through an aperture in lower portion of the cylinder.

57351. General Aniline & Film Corporation. Improvements in foaming detergent compositions. The composition comprises about 0.1-1 part of a non-ionic surface active polyoxyethylene ether of an alcohol derived from "OXO" process and about 1 part of a water-soluble anionic non-soap synthetic detergent containing at least 10 carbon atoms.

57352. The Firestone Tire & Rubber Company. Improvements in tires and method of making same. Removing line while hot from mould in which it has been at least partially vulcanized and retaining it in moulded shape until it cools below heat-shrinkable temperature of the strain members of heat shrinkable material of tire body.

57353. Esso Research and Engineering Company. Chlorinated butyl rubbers. Reacting a butyl-type rubbery polymer with a chlorinating agent.

57354. United States Steel Corporation. Strip coiling apparatus. An apparatus for coiling strips utilising a belt wrapper; the pulleys and the belt of the wrapper are modified to make it self-aligning.

57355. Dr. K. H. Patel. Improvements in or relating to the manufacture of salicylic acid. Heating equimolecular quantities of phenol & NaOH, passing CO_2 at 100 lbs./sq. in pressure in moisture free product, dissolving

reaction product in water, purifying and precipitating salicyclic acid therefrom.

57356. Zyma S. A. New meta-dialkylaminoethoxybenzoic acid esters, their hydrochlorides and process for the preparation of these compounds. A metal substituted benzoic acid ester is reacted with a compound of dialkyl amino alcohol to introduce an ether linkage in the metal position.

57357. D. P. Ahuja. Heat pump. Fluid is recurrently vaporized and condensed and a float is provided of thermally insulating material which is less dense than the liquid in the system.

MAY 17.

57358. Shri Ram Institute for Industrial Research. A device for regulating gas-liquid contacting processes. Comprising feed lines for gas liquid aspirator and flow meter for gas and flow controller to determine maximum gas flow.

57359. Linotype and Machinery Limited. Improvements relating to sheet delivery apparatus for printing machines. (May 20, 1955.) An auxiliary pile-board adapted detachably to be fitted over top of the pile to receive and support printed sheets during continued delivery independently of main pile-board.

57360. Estirajes Balmes S. A. Apparatus for drafting rovings or bands of textile fibers. A draft roller and a feed roller combined with a pressure roller placed on one side of the plane passing through the axis of the feed and draft rollers and with another pressure roller on the other side of the said plane.

57361. Braithwaite and Company (India) Limited. Improvements in and relating to foundation bases. (June 6, 1955.) Radially expandable to cover a large area than in the collapsed condition in which the base is adapted to be placed.

57362. Spinnbau G.m.b.H. Method of and device for changing bobbin rails on roving frames and spinning frames. Moving the bobbin rail carrier downwardly beyond a point representing the normal downward limit.

57363. Void.

MAY 18.

57364. Imperial Chemical Industries Limited. Improvements in the manufacture of tubular and flat film of organic thermoplastic material. (June 3, 1955.) Wherein the fluid is introduced through a tubular probe passing through the nip of the rolls, at least one of said rolls being circumferentially grooved to provide a passage for the tubular probe.

57365. Void.

57366. May & Baker Limited. Improvements in or relating to amines and to processes for their production. (May 19, 1955.) [Addition to No. 54381.] Para-Amino phenoxy alkyl/alkenyl-amides are prepared by reacting a suitably substituted benzene compound with compounds known to introduce an ether linkage.

57367. Void.

57368. Raptakos Brett & Company Private Limited. A process for the preparation of an antibiotic product. Cultivating strain of *Streptomyces* RBC-5 in nutrient medium.

57369. Industrial Development Corporation. An eye unit for a hook and eye fastening. Comprising staple member with central bar having integral end bars with complementary backing plate to receive free ends of the prongs.

57370. V. K. Batra. Ring files and loose leaf binders. Free ends of the rings are bent away such that axis of bent portion is at an angle to periphery of the ring.

57371. S. K. Arnold. Improvements in or relating to brackets for scaffolding and the like. An anchorage fitting is secured within a bore in the wall

and a bracket with a horizontal member is releaseably engaged with said fitting to anchor the bracket.

57372. Void.

MAY 19.

57373. Standard Telephones and Cables Limited. Improvements in or relating to electromagnetic relays. (August 10, 1955). Contact spring moved in opposite directions by providing two armatures, one at each end of the electromagnet.

57374. Creed & Company Limited. Arrangements for stacking sheets successively cut from a continuous strip. Sheets successively cut from a continuous strip is stacked with means including means for clamping sheets already stacked and for raising the trailing edges.

57375. The British Tabulating Machine Company Limited. Improvements in or relating to electronic calculating apparatus. (June 22, 1955.) Operating on the successive halving and doubling principle, in which successive denominations of a number are operated upon time sequence.

MAY 21.

57376. Void.

57377. W. R. Grace and Company. Machine for applying a sealing compound to a crown member for a container. (April 16, 1956.) Applying liquid sealing compound to closure of first continuously rotating chuck moving axially and then transferring to second simultaneously movable chuck but rotatable at variable speed.

57378. SKF Kugellagerfabriken Gesellschaft mit beschränkter Haftung. Apparatus which has at least one spinning system for spinning textile fibres by means of drafting mechanism in particular for the purpose of determining the drafts. Varying the draft by infinitely variable speed change gears and measuring evenness of yarn electrically.

57379. Johnson & Johnson. Package for sterile surgical articles. (October 21, 1955.) Comprises multiplicity of super imposed sheets having marginal end portions sealed to form compartments and having tabs at ends to peel off the seals.

57380. Imperial Chemical Industries Limited. Improved vulcanisation process for rubber and vulcanisable compositions. (May 31, 1955.) Having incorporated accelerator and N:N'-thiobis-morpholine in rubber containing furnace black and sulphur.

57381. Imperial Chemical Industries Limited. Improved vulcanisation process for rubber and vulcanisable compositions. (May 31, 1955.) Having incorporated accelerator N:N'-dithio-bis-alkylaniline in rubber containing furnace black and sulphur.

57382. T. Dass. Improvements in or relating to cycle stands. Comprises a spring carrying lever pivotally secured to one of U-shaped members, locking clamp on inner end of said lever for catching a tooth of ratchet on a spring loaded plate to lock the stand.

57383. Void.

57384. Montecatini Societa Generale Per L'Industria Mineraria E Chimica. Preparation of high molecular weight silicious materials. Aqueous systems comprising water, soluble silica and colloidal silica particles are prepared causing simultaneous dehydration and increase of molecular weight of the desired material.

57385. Daimler-Benz Aktiengesellschaft. Regulatable air cooling system for internal combustion engines. (March 22, 1956.) [Addition to No. 56890.] In each cooling jacket a common regulating member controls cross section for flow of cooling air through jacket space and cross section for cooling air through by-pass space.

57386. Daimler-Benz Aktiengesellschaft. Improvements relating to the resilient mounting of a power unit in a motor vehicle by the aid of an auxiliary

frame. (March 29, 1956.) Supporting one end of power unit on transverse member of U-form auxiliary frame and other end with interposition of rubber cushions at free ends of frame limbs with tie device.

57387. Daimler-Benz Aktiengesellschaft. Improvements relating to the mounting of a power unit in a motor vehicle by the aid of an auxiliary frame. (March 29, 1956.) Forked auxiliary frame built up from sheet metal pressings and embracing and supporting power unit provided at ends of its limbs with extensions supporting opposite end of power units; extensions preferably tubular and welded to one of the pressings.

57388. Societe Du Vacuum Concrete. An improved process and device for the internal treatment of fresh concrete. An expanding core the surface of which is covered by a vacuum chamber is used.

57389. May & Baker Limited. Improvements in or relating to phenthiazine derivatives. (April 19, 1956.) By effecting reduction of a corresponding nitrile in the presence of an amine.

57390. The United Steel Companies Limited. Improvements relating to apparatus for controlling the continuous casting of metals. (May 26, 1955.) Controlling the rate of supply of molten metal and rate of withdrawal by means of a device wherein the mould forms part of the core of a transformer, the windings of which surround the mould and a voltage is applied to the primary winding so that induced voltage of the secondary winding varies with the level of the metal in the mould.

57391. Robertson Thain Limited. Improvements in or relating to floor constructions. A concrete unit is laid upon a metal subfloor which has parallel channels.

57392. Industrial Development Corporation. A hook assembly for use in fastening together flaps of clothing. Comprising a member formed in two platelike parts and spaced apart to receive an eye therebetween and a stay plate having at least one opening.

57393. Goodman Manufacturing Company. Improvements in conveyors. Comprising an endless belt the conveying reach of which is supported between a pair of flexible cables.

MAY 22.

57394. J. A. Eastwood. Apparatus for multi-stage controlled withering of tea leaf. Comprising a plurality of withering tunnels, an individual air duct connected to one end of each tunnel and enclosing therein a heater unit.

57395. J. A. Eastwood. Apparatus for the controlled withering of tea leaf. Comprising a withering tunnel, a main fan and a direct oil-fired heater.

57396. Travenol International Inc. Container for supplemental medication. The container comprises a bottle sealed by a puncturable resilient stopper and a medicament vial with an open mouth enclosed by a discharge cap having an outlet passageway therethrough the cap being adapted to be inserted through the stopper.

57397. Colgate-Palmolive Company. Abrasive detergent and polishing compositions. Comprises a water insoluble inorganic siliceous abrasive material, a heterocyclic N-chloroimide and an organic detergent compound.

57398. The Dow Chemical Company. Improvements in or relating to method of treating sugar solutions. By feeding sugar solution to a water-immersed bed of ion exchange resin particles and thereafter feeding water to the bed to collect successive fractions.

57399. Gestetner Limited. Photolithographic printing plates and production of prints from them. (June 9, 1955.) Imagewise exposing plate with an oleophilic base and a layer of light-sensitive impardened gelatins silver halide emulsion, developing in developer which partially hardens gelatin in exposed areas leaving it hydrophilic, removing unhardened gelatin, treating plate with lithographic etch and inking the plate.

57400. N. V. De Bataafsche Petroleum Maatschappij. Preparations for treating soils. Comprising 1, 2-dibromo-3-chloropropane in admixture with a carrier.

57401. The Singer Manufacturing Company. Zigzag sewing machine. A vibratory needle bargate mounted in the head, a pitman disposed behind the front wall of the bracket arm.

57402. The General Electric Company Limited. Improvements in or relating to electrical circuit arrangements for supplying a plurality of time-interlaced pulse trains, for use, for example, in automatic telephone systems. [Divided out of No. 53224; ante-dated to November 29, 1954.] Including a plurality of delay devices each of which has an input and an output.

57403. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to process for the manufacture of dry pulverulent nutritious matter on the basis of liver and preparations so obtained. By dispersing pulverised livers in aqueous solution of yellifiable colloid containing carbohydrates.

57404. N. V. Philips' Gloeilampenfabrieken. Improvements in incandescent electric lamps or electric discharge tubes. Having a bulb from which is at least one point through a flattened pinch, situated outside the bulb at least one terminal wire is brought out and secured to a current supply member.

57405. Regoma Company Ltd. Method for moulding a tube of plastic material. Head of the tube is formed by injecting plastic material into the die at a spot which is at the very extremity of the blank.

57406. Chinoin Gyogyszer Es Vegyeszeti Termekek Gyara R.T. Process for the preparation of 1-(p-nitrophenyl)-2-acylamidopropane-1, 3-diols. A serine derivative is reduced with a complex metal hydride reducing agent, the metal complex is acylated and the N-acyl metal complex is decomposed.

57407. Prof. V. De Nora, Electrolytic cell. Including vertical metal cathode surface, anode parallel therewith, a diaphragm in between anode and cathode, means to flow mercury amalgam down the cathode surface and means to flow electrolyte through the cell.

57408. International Combustion (Holdings) Limited. Improvements in or relating to apparatus for feeding fuel to furnace grates. (June 2, 1955.) [Addition to No. 50678.] Means provided for varying the distribution of fuel on the furnace grate and which is operatively connected to mechanism for imparting a desired variation to distribution.

MAY 23.

57409. "SHELL" Research Limited. Lubricating oil compositions. (May 25, 1955.) Comprising lubricating oil and a reaction product of a compound of general formula RSX wherein R represents hydrocarbon radical and X represents halogen atom, with a compound containing olefinic double bond.

57410. Dorr-Oliver Incorporated. Improvements in the fluidized bed roasting of finely divided materials which react exothermically at roasting temperatures. Removing major portion of excess heat by heat exchange elements, a balance by other means.

57411. Westinghouse Brake & Signal Company Limited. Improvements relating to apparatus for vacuum braking systems for railway vehicles. (June 9, 1955.) Operating rotary free-wheel device braking force is applied through the cross-shaft connecting two cylinders.

57412. Pending.

57413. Pending.

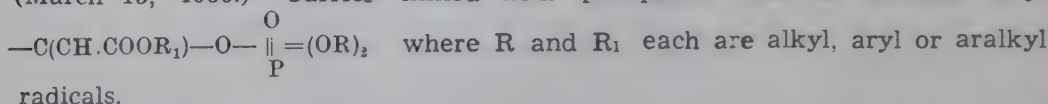
57414. International Engineering General Research And Licensing Company. Improved annular springs, and method for manufacturing them. A piece of resilient material formed with angularly equispaced radially extending identical pockets over part of radial extent formed on one side; pockets terminating at the beginning of slots on same radius and extending equal distances between common peripheral edge and ends of respective pockets.

57415. J. R. Geigy A.-G. 4-substituted 1,2-diaryl-3,5-dioxypyrazolidines. A reactive functional derivative of a heterocyclic carboxylic acid is reacted with a malonyl hydrazobenzene.

57416. The Singer Manufacturing Company. Carbon-pile controller with built-in snap-action switch. Including carbon compression resistor, an operating pull-rod and spring means controlled by the rod to apply variable pressure to the resistor and a snap-action switch in series with the resistor and operatively connected to pull-rod for initial limited range of movement of pull-rod and disconnected from the pull-rod from movement beyond this range.

57417. The Singer Manufacturing Company. Ornamental seam sewing machine. Zig zag stitching in predetermined path is achieved by the mechanism having rotary pattern cam and controlling means.

57418. Farbenfabriken Bayer Aktiengesellschaft. Pest control compositions and a process for the preparation of the active principles therefor. (March 15, 1956.) Carrier mixed with phosphoric acid of formula Aryl



57419. Siemens & Halske Aktiengesellschaft, Arrangement of train-end magnets in railway safety technique. The yoke by means of which the magnet is attached to a buffer of the last car, is provided with an extension piece preventing coupling of the said last car with another car at its rear.

57420. Didier-Werke A. G. Rolling mill low furnace for slabs and blocks or ingots. Comprises burners in cross well in such a way that the flame touches tangentially the longitudinal wall.

57421. Maschinenfabrik Ruti A. G. Vormals Casper Honegger Automatic bobbin-changing mechanism for looms. Comprises two magazines, connected removably and exchangeably to associated supply ways, opening into a common channel.

57422. M. K. Panjwani. An improved cycle horn. [Post-dated to June 21, 1956.] Having hole in the centre, one face of circular hollow tube is provided with a slit opening and other is fitted with a T-shaped metal vibrator.

MAY 25.

57423. Void.

57424. A. H. Khan, K. U. Khan, G. U. Khan and M. U. Khan. Improvements in or relating to 'chilams' or tobacco bowls for hubble-bubbles and like smoking appliances. Comprises an electric heating coil inserted in grooves of porcelain plate placed in upper half portion of chilam.

57425. Petrochemicals Limited. Process for the production of a chlorinated polyethylene. (May 27, 1955.) Wherein a polyethylene having a molecular-weight in excess of 10,000 and less than 3 methyl groups per 100* methylene groups is subjected to chlorination.

57426. Pending.

57427. United States Steel Corporation. Electrostatic strip-oiling method and apparatus. Passing strip centrally disposed between spaced apart electrodes, establishing an electrostatic field, dispersing lubricant in a stream of gas, and discharging the dispersed lubricant immediately into the zone of maximum electrostatic intensity.

57428. Merck & Co. Inc. Isocamphane compounds and processes for preparing the same. Camphene is contacted with HCN in the presence of an acid and the product is reduced, and if desired further converted into an acid addition salt thereof.

57429. R. Staubli, H. H. Staubli, and O. Staubli. Double lift dobby. In which per heald shaft a baulk is allocated at the ends of which, coacting with draw knives, draw hooks are articulated which, according to the pattern card, transmit the movement of the knives to the heald shafts.

57430. Dexter and Company (High Wycombe) Limited. Improvements in and relating to rectilinear ball bearings and to bearing elements for use therein. (May 26, 1955.) The balls circulate in a path comprising a rectilinear bearing track and guideway from one end of the bearing track to the other, the bearing track being defined by two parallel track rods, and part of the back faces of the rods define part of the guideway.

57431. Boots Pure Drug Company Limited. A new piperazine derivative. (August 18, 1955.) Piperazine is reacted with 4-n-hexyl resorcinol, in the approximate molecular ratio of 3:2 respectively.

57432. Strachan & Henshaw, Limited. Improvements in or relating to devices for retarding the movement of wheeled vehicles. (May 27, 1955.) Gradual contacting of a movable rocker arm with wheels effected by hydraulic unit retards the movement of the wheeled vehicles absorbing and dissipating energy.

MAY 26.

57433. Goodman Manufacturing Company. A cable-supported conveyor. Comprises an endless belt tensioned between head and tail sections and supported by rollers carried between pair of cables under tension.

57434. Dr. K. K. Majumdar. Method of finely grinding tough solids at an accelerated rate. The material to be ground is mixed with a solid grinding aid harder than the one to be ground and subjecting the mixture to grinding operations.

57435. L. S. Perez. Auto-pedal loom. Two shafts placed one above the other and interconnected by toothed wheels, the lower shaft having two pairs of heald tappets to provide shed.

57436. Dr. K. H. Patel. An autoclave. Comprising a reaction vessel having stirring arrangements with a fixed set of blades around a central shaft and a set of rotating blades, the rotating blades and fixed blades alternate one above the other, and means for heating or cooling the vessel.

57437. B. P. Pal, L. Sahai, and K. C. Sen. A process for the production of a mineral supplement for the cattle. The supplement is formed by bone meal chalk, decalcium phosphate, and common salt.

57438. H. Mahle. Pistons for Internal Combustion Engines. Ring zone thicker than the bearing skirt portion connected to it by a thin wall portion.

57439. H. Mahle. Light metal pistons for internal combustion engines. Piston bosses are supported only against the open skirt end of the piston through supporting ribs connected to piston skirt only.

57440. B. Duval and R. S. Waddington. Fluid handling means. (June 1, 1955.) Comprising a tabular body part, liquid inlet and outlet ports, a manually operable valve associated with liquid port, an air reservoir located within and partitioned off from the remainder of said body part, an air inlet port formed through longitudinal wall of said body part and air outlet port leading from air reservoir to communicate with exterior of body part.

57441. J. A. Eastwood. Improvements in or relating to trays for use in the processing of tea leaf. A tray for withering tea leaf having an outer framework, mounted on an internal railing which secures a mesh finished with beading.

MAY 28.

57442. Void.

57443. Nitto Seishi Kabushiki Kaisha. Improvements in or relating to crushing and conveying apparatus used in pulping process. Comprising a co-operating pair of crushing and feeding rollers resilient means for urging the said rollers to each other to crush the bamboo into strips and a discharge opening and a lateral conveyor to receive the strips.

57444. Nitto Seishi Kabushiki Kaisha. Machines for cutting bamboo strips and the like material for pulping use. Comprising a pair of feed rollers disposed within a feeding trough, the upper roller being pivotally mounted a variable gear box, a rotating disc and a rotary cutting blade mounted on said disc for cutting bamboo strips.

57445. Imperial Chemical Industries Limited. Improvements in and relating to the polymerisation of ethylene. (June 6, 1955.) Contacting ethylene with olefins acid hydrogen with reaction product of organo compound of non-transition elements of Groups 1, 2 and 3 of periodic table with compound of transition metal.

57446. E. Shipton & Company Limited. Improvements in or relating to nozzle arrangements for fitting to bottles. (June 3, 1955.) Comprising a nozzle with a narrow bore, a passageway and a chamber between them, a plug fitting within the passageway except for narrow axial space between them, one end of the plug having an extension fitting into the chamber but spaced therefrom by spacing member.

57447. Stamicarbon N. V. Process and apparatus for separating mixtures of solid substances into fractions differing in specific gravity, by means of a separating suspension. Supplying dilute suspension from rinsing screen after main separator tangentially to concave side of a screening deck curved in the direction of flow.

57448. S. Smith & Sons (England) Limited. Improvements in or relating to speed-responsive switching devices. Responsive to rate of rotation of shaft having co-operating magnetised and eddy current members, first attached to shaft and second restrained against rotation; contacts actuating means and abutment positioned by second member and in an adjustable location engage at a rate of rotation dependent on location to engage or disengage the contacts

57449. Rauma—Repola Oy. Scraper means arranged in connection with a strainer surface. Consisting mainly in support means and a scraper blade mounted on the support means for movement in one direction for scraping a surface the scraper blade having a stepped portion leaving in the same direction of movement.

57450. Universal Oil Products Company. Process for activating catalysts containing a metal and a metal oxide. By wetting the catalyst with a hydrolyzable nitrate and chloride solution and subsequently calcining it.

57451. The Plessey Company Limited. Improvements in or relating to electrical capacitors. Dry electrolytic capacitor comprising electrodes of strip form bolted together.

57452. Koehler Manufacturing Company. Improvements in or relating to plates and separators for storage batteries. (January 12, 1956.) Comprises a reticulated grid and active material.

57453. John Thompson Water Tube Boilers Limited. Improvements in or relating to heat exchangers and tubes therefor. (September 22, 1955.) [Addition to No. 54820.] A composite tube comprising an outer tube, an inner tubes spaced therefrom and a heat conducting helical wall contacting the two tubes and forming a passage, is characterised in that the wall is metallicity bonded both to the inner and outer tubes.

57454. Societe d'Applications Generales d'Electricite et de Mecanique. Improvements in means for guiding, supporting and propelling the shuttle of a circular loom with horizontal shed. [Addition to No. 50944.] Comprising an arcuate guide mounted on the shuttle and disposed inwards, radially of the loom.

57455. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Process for the manufacture of substituted 2-oxobenzoquinolizines. By reacting according to Mannich condensation a 1-carbalkoxy-methyl-1, 2, 3, 4-tetrahydroisoquinoline with formaldehyde and substituted malonic acid, esterifying any free carboxylic group and then submitting to Dieckmann condensation.

MAY, 29.

57456. N. V. De Bataafsche Petroleum Maatschappij. Process for the preparation of hydrocarbon oils entirely or partly freed from mercaptans. Mixing mercaptan containing hydrocarbon oil with H_2SO_4 in a mixer separating two phases in settling zone, drawing off hydrocarbon oil from settling zone, returning H_2SO_4 to the mixer, supplying fresh quantity H_2SO_4 to acid recycling system and removing a quantity of acid phase therefrom.

57457. N. V. De Bataafsche Petroleum Maatschappij. Improved process for converting mercaptans and/or mercaptides into disulphides. [Addition to No. 51565.] Aqueous solution of an alkali metal hydroxide and a phenolate, the initial composition of which is the same as that of an aqueous solution of an alkali metal hydroxide and a phenolate which coexists with another alkali metal hydroxide solution containing less phenolate, is used as one phase of the two phase system comprising the same and a hydrocarbon oil.

57458. N. V. De Bataafsche Petroleum Maatschappij. Improved process for converting mercaptans and/or mercaptides into disulphides. [Addition to No. 51565.] An aqueous solution of an alkali metal hydroxide and a phenolate, the initial composition of which is the same as that of an aqueous solution of an alkali metal hydroxide and a phenolate which coexists with one or more solid compounds of the alkali metal hydroxide with the phenol and/or of the alkali metal hydroxide with the phenol and water, is used as one phase of a two-phase system comprising the same and a hydrocarbon oil.

57459. Bakelite Limited. Improvements in or relating to the bonding of metal components to synthetic resinous moulded materials. (June 24, 1955.) A layer of an adhesive comprising hardenable melamine-formaldehyde resin and a layer of another resinous adhesive for the metal and melamine-formaldehyde resin, is interposed between the metal component and moulded material and the assembly is consolidated.

57460. C. Vaccarino and G. Vaccarino. Process for neutralizing vegetable or animal oils or fats within a watersoluble solvent. Treating oils dissolved in lipophilic-hydrophilic solvent with aqueous alkaline solution.

57461. Societe Des Usines Chimiques Rhone-Poulenc. The production of new phenthiazine compounds. (June 20, 1955.) By reacting a 3-halogeno-9-oxyphenthiazine with a compound of the formula QNRr_1 .

57462. Societe Des Usines Chimiques Rhone-Poulenc. The production of new phenthiazine compounds. (June 20, 1955.) By oxidising a phenthiazine or a salt thereof.

57463. The Singer Manufacturing Company. Sewing machine throat-plate with needle-threading aid. A long and a short groove are provided one opposite side the other along the needle and an indicium for direction.

57464. The Singer Manufacturing Company. Work-jogging attachment for sewing machines. Anti-flagging device in sewing machines by a lever fulcrumed at one extremity of the attachment.

57465. The Singer Manufacturing Company. Carrying case for sewing machines. Comprising base member and cover member with upwardly convergent sides, latches and keepers for hinge.

57466. Atag-Trust. Mobile elevating and erecting device for masts assembled from sections. Laterally hinged guide frame with guide rollers and locking members which support mast sections slid through frame at such height so that fresh mast section can be placed between elevating table and raised section.

57467. Spinnfaser Aktiengesellschaft. Method of purifying the exhaust air from viscose manufacturing plants. (March 1, 1956.) Treating with alkaline ferric hydroxide suspension wherein at least 7.5 mols of ferric hydroxide are used per mol of H_2S in the gas and wherein the exhaust air is passed at a velocity of at least 30 cm/sec through ferric hydroxide suspension.

57468. Sandoz, A. G. New Condensation Products from Glucosides. A podophyllo-toxin glucoside is reacted with a carbonyl compound, $R_1\text{-CHO}$ ($R_1 =$ alkyl, aryl or heterocyclic residue).

57469. Standard Telephones and Cables Limited. Articulated electrical waveguide construction. (September 1, 1955.) Comprises a plurality of short straight tubular metal elements.

57470. Standard Telephones and Cables Limited. Method for extruding a polymer of chlorotrifluoroethylene to form the insulating coating of an electric conductor. Comminuting powdered polymer comprising into tablets and feeding these into extruder.

57471. Creed & Company Limited. Facsimile optical scanning system. Consisting means for wrapping a transmitting blank into cylindrical form for inside scanning, a rotatable drive shaft, a mirror shield, a line feed carriage, scanning light beam and short focus lens.

57472. C. L. Savara. Improved display device for writing instrument and the like. Transparent tube filled with water or oil and carrying article with advertisement and sheath therefor movable independently therein.

MAY 30.

57473. Indian Oxygen Limited, formerly known as The Indian Oxygen & Acetylene Company Private Limited. Improvements in or relating to electric arc welding. (May 31, 1955.) The output of A.C. power source feeding the arc is controlled by a saturable reactor.

57474. The Indian Oxygen and Acetylene Company Private Limited. Improvements in or relating to the manufacture of steel. (June 2, 1955.) Passing molten iron through a tower containing packing material in counter current flow to a stream of oxygen.

57475. Atag-Trust. Mast section constituting a structural element for the assembly of masts, in particular aerials and erection masts. Individual mast sections provided in the longitudinal direction with plug-in-fastenings.

57476. T. Kovacs. Improvements in fountain pens. Comprises capillary intermediate space contracting towards ink reservoir and communicating with the same and atmosphere said space being divided into longitudinal grooves.

57477. Chas. Pfizer & Co., Inc. Preparation of chloro-olean-domyein and salts thereof. Oleandomycin is treated with HCl to obtain chloro-oleandomycin and if desired it is contacted with an acid.

57478. Chas. Pfizer & Co., Inc. Tetracycline suspensions and preparation thereof. Magnesium tetracycline (particle size < 100 microns) is incorporated in an aqueous vehicle, the molar ratio between magnesium and tetracycline being between 1:1 and 1:1.5.

57479. Von Kohorn Eastern Corporation Ltd. Improvements in and relating to deaerating and degasing equipment. Tank capable of being evacuated with means for delivering fluid to it at points spaced along its periphery and disposed above its bottom; fluid directed toward inner wall flows as a film along it; means provided for individual adjustment of fluid flow to each delivery point.

57480. Siemens & Halske Aktiengesellschaft. Communication cable system comprising a cable line and repeater stations interposed in said cable line. Having combination of multiphase A.C. power source having phase conductors for energizing repeater stations through cable, power feeder means formed by selected group of communication leads, the group having as many insulated subgroups as power source has phases, each subgroup being connected to one of said respective phase conductors so that respective phase currents flow in mutually adjacent relation from the source through cable to said stations.

57481. Aktiebolaget Tryckror. Improvements in or relating to devices for use in the manufacture of spigot and socket pipes of concrete having pre-tensioned reinforcements. Comprising an expansible outer mould and an

essentially rigid inner mould surrounded by a coating expansible under fluid pressure.

57482. N. V. Tervalon Maatschappij Voor Voedingsmiddelen Op Wetenschappelijke Basis (Scientific Food Co.). Improvements in or relating to methods of producing pastry. Adding dry edible protein individual particles of which are surrounded by a water impermeable layer.

57483. C. A. Taylor. Method and apparatus for reduction of metal oxides. Continuously feeding oxide to be reduced of a particle size within 100—500 mesh in the upper part of a vertical reaction zone, maintaining atmospheric pressure a turbulent upward flow of gases containing at least a stoichiometric amount of free hydrogen introduced into the reaction zone.

57484. Ciba Limited. Process for the manufacture of new esters. [Divided out of No 55226; ante-dated to August 19, 1955.] Converting glucopyranosyl-glucopyranosides or metal salts thereof into esters with carboxylic acid containing, not more than 10 carbon atoms or metal salts thereof, by esterifying methods known *per se*.

57485. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Basically substituted butyric acid amides and a process for their manufacture. Amino group in α -amino- β -hydroxy-butyric acid anilide is reacted with formaldehyde in presence of formic acid or catalytically hydrogenated in presence of formaldehyde.

57486. Daimler-Benz Aktiengesellschaft. Improvements in multiple jet carburetors. (February 10, 1956.) Void after publication. Comprise a throttle member in one pipe connected with a throttle member in other pipe by a linkage so that first mentioned throttle member opens only when latter has reached a predetermined open position.

57487. O. W. Burke.—Improvements in vinylic fillers and the reinforcement of elastic and plastic materials therewith. Blending with latex a liquid suspension of colloidal sized vinylic filler particles.

MAY 31.

57488. Sorelux S. A., and Oletta S. A. Improvements in or relating to pharmaceutical products and methods for manufacturing same. (June 2, 1955.) Void after publication. Treating genus voacanga with alkaline medium extracting with organic solvent and the reacting with concentrated acid.

57489. Union Chimique Blege S. A., and Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny et Cirey. Process and apparatus for the manufacture of phosphoric acid. Reacting natural phosphate with sulfuric acid in a vessel with rigorous constant stirring so as to maintain a constant homogeneous reaction condition.

57490. The Goodyear Tire & Rubber Company. Improvements in fluid spring. Comprises co-operation of ends of flexible member and two opposed supports in such a way as to seal upon pressurization without use of clamping means.

57491. The United Steel Companies Limited. Improvements relating to the continuous casting of metals. (June 1, 1955.) Metal continuously cast into an open ended and externally cooled mould and withdrawn for the lower end of the mould with at least an outer solid skin in which the descending liquid metal stream is subjected to cooling.

57492. Void.

57493. M. Gerhold, Dipl. Ing. Dr. Techn. Method of converting gaseous or liquid hydrocarbons into gases consisting substantially of low molecular carbon compounds and hydrogen. By decomposing hydrocarbons overcatalysts and the decomposition products are treated with oxidizing gases.

JUNE 1.

57494. Dr. K. Ziegler. Process and apparatus for the production of dialkyl aluminium hydrides and aluminium trialkyls. (April 3, 1956.) Wherein alu-

minium is heated with an aluminium trialkyl and hydrogen at a pressure higher than 20 atmospheres.

57495. Montecatini Societa Generale Per L'Industria Mineraria E. Chimica. Process for the production of ammonium sulphate. Forming a stronger aqueous ammonium sulphate solution from ammonia and concentrated H_2SO_4 , and a weaker aqueous ammonium sulphate solution from $CaSO_4$ and $(NH_4)_2CO_3$ and drying the stronger solution by utilising its own heat of formation.

57496. Root-Lowell Manufacturing Co. Atomizing spraying device. Comprises a sprayer assembly and the siphon tube is sealed off when not in use.

57497. Creed & Company Limited. Improvements in or relating to facsimile apparatus. (June 3, 1955.) Includes a magazine for storing a plurality of message sheets before transfer to the scanning position.

57498. Societe Anonyme Des Manufactures Des Glaces Et Produits Chimiques De Saint-Gobain, Chauny & Cirey. Improvements in the manufacture of fibres, in particular glass fibres. (February 28, 1956.) Characterized that high temperature fluid or flame is projected towards the zone of peripheral wall of rotating body and on to the threads emitted from the orifices.

57499. Societe Anonyme Des Manufactures Des Glaces Et Produits Chimiques De Saint-Gobain, Chauny and Cirey. Improvements in the manufacture of fibres, particularly glass fibres. (February 28, 1956.) Threads on ejection being subjected to action of gas at high temperature and velocity issuing from expansion orifices provided in annular combustion chamber and imposing on threads a sudden change in direction and a stretching action.

JUNE 2.

57500. J. Nara. A wheat flouring apparatus of impact pulverizing type. Separating product from first pulveriser in double sifter into coarse, fine flours and bran separating bran in whizzer separator and subjecting coarse flour to another pulverisation connected to second sifter.

57501. The Goodyear Tire and Rubber Company. Improvements in automatic brake adjustment. Friction gripping means within the brake piston holds a pin member against relative axial movement excepting when wear occurs on the brake.

57502. The Goodyear Tire & Rubber Company. Improvements in rim structure. A generally cylindrical side retaining seat is provided to support adjacent inner face of retaining flange to support inner periphery of the endless side ring.

57503. The Goodyear Tire & Rubber Company. Improvements in pressure sensing automatic clearance adjuster. Auxiliary piston carried by automatic adjustment pin has a tapered flange portion to force a split ring.

57504. N. S. Yuriell. Improved spraying process and apparatus. Preheating nozzle of spraying lance or gun and hose and connections at either end of hose by passing steam and/or boiling water therethrough under pressure prior to passing of material to be sprayed.

JUNE 4.

57505. Void.

57506. Automatic Telephone & Electric Company Limited. Improved circuit arrangement for operatively connecting a particular one of a plurality of first equipments repeatedly to equipment provided in common thereto. (June 4, 1955.) Comprises means for storing code indication in the first equipments and means in the common equipment for applying code markings.

57507. Automatic Telephone and Electric Company Limited. Improvements in dial switches for use in telephone or like switching systems. (June 25, 1955.) An impulsing cam is carried by a member having limited movement away from and towards the impulsing springs.

57508. The Holo-Krome Screw Corporation. Forging process. Heating a steel blank to a temperature in excess of 200° F. subjecting the slug in a forging die to successive punching pressures so that metal is moved radially and axially of direction of application of the punching pressure.

57509. Dunlop Rubber Company Limited. Bonding elastomeric materials to rubber. (June 22, 1955.) The composition comprises an organic tri-isocyanate and a polymer containing a group known to react with the tri-isocyanate or a linear reaction product of a polymer and a polyisocyanate.

57510. Gebr. Stork & Co.'s Apparatenfabriek N. V. An apparatus for washing an endless conveyor belt, more particularly the conveyor belt of a screen printing machine. Comprising a trough-shaped container having a shaft therein carrying spaced parallel discs, which container comprises guiding means for guiding the conveyor belt.

57511. Gebr. Stork & Co.'s Apparatenfabriek N. V. An automatic printing paste feed controlling device. Comprising a plurality of stencil frames with squeegees each frame having a feeler which closes a circuit energizing a servo mechanism which controls the feed of printing paste.

57512. National Malleable and Steel Castings Company. A car coupler shank and draft gear follower assembly. Shank and followers provided with means, for surface engagement, of a ball and socket configuration.

57513. D. N. Ghosh. A continuous electrochemical process for the de-acidification and clarification of the beet and sugarcane juices by electrolysing them to neutrality with Direct current and Aluminium, Iron or Steel Electrodes and followed by liming and filtering and neutralising the alkaline filtrate with calcium superphosphate. By electrolysing the juices to neutrality with direct current and Al, Fe or Steel electrodes and followed by liming to about pH 9 and neutralising the filtrate with calcium super phosphate.

57514. Jenaer Glaswerk Schott & Gen. Process for the production of alkali-resistant instrument glasses, and instrument glass manufactured by this process. Introducing zirconium oxide in the glass melt.

57515. A. Blache. Improvements in or relating to prefabricated buildings blocks and walls and like structures built therewith. Having a continuous groove at least on one of its end or side faces for binding agent.

57516. Veb Sturmlaternenwerk Beierfeld. Lantern top for hurricane lantern. Outer chimney open at top and drawn to height of or above the height of inner chimney and closed at lower end with brim having a flat surface with rounded off corners raised to reach the side of inner chimney, the brim being fixed vertically to the axis of the lantern and having apertures.

JUNE 5.

57517. Merck & Co. Inc. Isonipicotate compounds and derivatives and process for preparing the same. An acid salt of ethyl or methyl 4-phenyl-isonipicotate is reacted with a β -(p-substituted phenyl) ethyl halide.

57518. F. M. Wagnon. Travelling cotton harvesting machine. The machine has press means comprising a press box having an opening through which harvested cotton is fed, a pressure responsive supporting member movable in the box below the opening, and a reciprocating pressing member movable in the box.

57519. Simon-Carves Limited. Improvements relating to reversal systems for coke ovens. Comprising pairs of waste gas ducts, each associated with a pair of channels, one for admission of air and the other for admission of air and lean gas alternately and leading to the regenerators characterised in the provisional of a single operating member to operate both air valves.

57520. Pritchett & Gold and E. P. S. Company Limited. Improvements relating to separators for electric storage batteries. (July 20, 1955.) Consisting of a micro-porous sheet having substantially vertical coarsely pitched ribs on one side, and finely pitched substantially vertical ribs on the other side.

57521. Pending.

57522. Deutsche Gold-und Silber-Scheideanstalt vormals Roessler. Process for the production of secondary thiophenylpyridylamines. (September 16, 1955.) [Divided out of No. 55587; ante-dated to October 11, 1955.] Reacting phenylpyridylamine with sulphur at elevated temperature.

57523. The Cementation Company Limited. Improvements in or relating to methods and apparatus for treating soil. (June 6, 1955.) Wherein a single jet stream of liquid is rotated about an axis extending at an angle to the axis of the jet stream and is inserted into the soil in the direction of the axis of rotation.

57524. I. Egami. Method and apparatus for the practically continuous production of metallic magnesium by the fused salt electrolysis of chlorides, preferably a mixture substantially consisting of magnesium and sodium-chloride. A metal shell containing carbonaceous substance and magnesium compound are used as anode box.

57525. Ciba Limited. Process for the manufacture of benzonitrile. Subjecting an aromatic hydrocarbon to catalytic oxidation with air and reacting it with ammonia.

57526. Ciba Limited. New salt of rescinnamine and method of preparing same. [Addition to No. 49755.] Rescinnamine is converted into its phosphate of methods known *per se*. The phosphate is then dried to obtain the dihydrate.

57527. Geecen Limited and J. E. T. Welland. Improvements in or relating to instruments such as Taximeters and other recording signalling or message transmitting instruments. (June 13, 1955.) Having base plate with projection having recesses, clamping elements movable in a plane parallel to base plate and engageable in said recesses, means for drawing elements towards each other to grip said projection, means for mounting said elements and means for holding a seal for securing said elements against unauthorised displacement.

57528. The British Drug Houses Limited. Preparation of 6 β -methyl-3-oxo- Δ 4-steroids. (June 20, 1955.) By oxidising a 3 β -hydroxy-6 β -methyl- Δ 4-steroids of androstane or pregnane series.

57529. The Wellcome Foundation Limited. Improvements in and relating to naphthalene derivatives and the manufacture thereof. (June 22, 1955.) By reacting an appropriate naphthalene diol is reacted with formaldehyde and an amine.

57530. Westinghouse Air Brake Company. Combined automatic and straight-air fluid pressure brake equipment. Comprises a brake pipe, straight air pipe, a brake cylinder, service valve having plurality of abutments responsive to brake pipe pressure reduction below normal pressure to operate said valve.

JUNE 6.

57531. J. R. Geigy A.-G. Eugenol glycolic acid and isoeugenol glycolic acid amides. Reacting eugenol or isoeugenol glycolic acid with a primary or secondary amine.

57532. Klockner-Humboldt-Deutz Aktiengesellschaft. Filter for dust containing gas, especially hot-dust-containing gas. (April 18, 1956.) Including a horizontal channel provided with wires arranged in different planes and said wires are provided with a vibrating device for removing dust adhering to them and said channel is enlarged downwards to form a chamber.

57533. Food Machinery and Chemical Corporation. Method of bleaching cotton fabric. (November 16, 1955.) The sodium silicate being completely eliminated by adding to the bleaching solution at least about 0.3 per cent. of a water soluble orthophosphate and a buffer such as an alkali borate.

57534. Food Machinery and Chemical Corporation. Method of bleaching cellulosic fibers. (January 23, 1956.) Bleaching cotton textiles with hydrogen peroxide, polyphosphates and ethylene diamine tetra-acetic acid.

57535. J. A. Eastwood. Tunnel for the controlled withering of tea leaf. Tunnel having a forked air duct provided with means for sealing the entrance and opening the exist of one of the limbs of the duct and *vice versa*.

57536. Buttner-Werke Aktiengesellschaft. Process and apparatus for simultaneously drying and cooling white sugar coming from a centrifuging station. (December 7, 1955.) Wherein some of the exhaust air of the annular disc drier is led into the preliminary drier and returned.

57537. Phenix Works Societe Anonyme. Method of coating sheet metal with plastic and sheet metal provided with a plastic coating according to this method. Comprising coating the metal surface with a layer of adhesive, heating the surface to a temperature so as to maintain the adhesive in a soft and receptive state and supplying a preformed film of plastic material.

57538. Societe Nationale De Constructions Aeronautiques Du Sud-Ouest. Automatic clutching declutching device, in particular for sun-and-planet gears. Automatic clutching and declutching device interposed between two relatively rotatable members having common axis.

57539. Ciba Limited. Process for the isolation of raunescine and isoraunescine and the preparation of their N-oxides and salts thereof. By treating the fraction containing the weekly basic alkaloids with nitric acid and isolating therefrom raunescine and/or isoraunescine or salt thereof.

57540. Ciba Limited. An additive to and feed for stimulating the growth of animals. Indole alkaloid of Apocynaceae family mixed with edible carrier material.

JUNE 7.

57541. Council of Scientific and Industrial Research. A process for the preparation of dihydro jasmone. Hydrolysing 2:5-diketo-4:6 dicarbethoxy undecane with aqueous alkali.

57542. Naamloze Vennootschap Hollandse Signaalapparaten. Machine for winding filaments or yarns. (June 8, 1955.) Relative movement of the spindle carrying yarn package and the frame, in which the device determining the spot where the yarn is wound on the yarn package moves to and fro.

57543. Imperial Chemical Industries Limited. Improvements in and relating to the production of thermoplastic moulding materials. (June 17, 1955.) A continuous rod is formed by extruding thermoplastic material through an orifice having an area at least 5 times as large as the desired cross section of the rod and then the area of cross-section of the rod is reduced to the desired value by stretching.

57544. Imperial Chemical Industries Limited. Modification of the properties of synthetic fibres. (June 20, 1955.) The fibres are treated with a quarternary ammonium compound prepared, e.g., from N-tertiary amino-substituted alkyl) acrylamide or methacrylamide.

57545. Tube Products Limited. Motor vehicle exhaust pipe to exhaust manifold coupling. (June 10, 1955.) Conical collar of outwardly and axially inclined fold on pipe contacts complementary surface of exhaust manifold with annular gland therebetween.

57546. United Kingdom Atomic Energy Authority. Improvements in or relating to monitoring apparatus. (June 9, 1955.) Comprises means for scanning a series of points, means for comparing the potentials an amplifier and an indicating means.

57547. S. Khaitan. Improvements in or relating to bobbins. Bobbin ends being retained in the barrel by a separate resilient retaining ring fitted to the barrel end and engaging with a grooved, undercut, tapered of like portion thereof.

57548. Metallschauch-Fabrik Pforzheim Vorm. Hch Witzemann G.m.b.H. Improvements in and relating to flexible tubes for covering and protecting con-

ductors, pipes, cables, tensioning cables and the like and devices for the manufacture of flexible tubes. (February 27, 1956.) Corrugated sheath for pretensioned structural element in reinforced concrete.

57549. The Wellcome Foundation Limited. Improvements in and relating to diquatertiary compounds and the manufacture thereof. Treating diamine with quaternising agent.

57550. Standard Telephones And Cables Limited. Radio navigation beacon system and beacon receiver therefor. Cyclically and successively a Plurality of signals including a plurality of differently directed radiation pattern bearing signals and a synchronising signal at a given frequency and phase, are transmitted.

57551. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Manufacture of salts of disazodyestuffs. (July 25, 1955.) Wherein an organic base is reacted with a disazo-dyestuff obtained by coupling a diazotized 4-amion-1:K-azobenzene with a 1-phenyl-5-pyrazolone-3-carboxylic acid.

57552. Montecatini Societa Generale Per L'Industria Mineraria E Chimica, and G. de Varda. Multicell closed circuit furnace and fused salt electrolysis process for aluminium production from aluminium oxide. Molten bath of aluminium is caused to circulate during electrolysis by difference of head within the same furnace in a closed circuit.

JUNE 8.

57553. S. S. Gokhale. A model for demonstrating reflection of light on a concave mirror. Post-dated to April 17, 1957. Constructed of 2 sheets separated by separators, front sheet having cut portions drawn on metallic pieces sliding in separators, a concave mirror, rays incident and reflected painted on front face, a slip and two holes cut in front and rear sheets and a T shaped rider bearing object passing through slits and two bent wires.

57554. E. K. Cole Limited. Back-scatter measuring gauges. (June 15, 1955.) Comprise a radio active source radiation from which passes through test material to backing material which reflects some of radiation to ionisation chamber and a standard mass of known back scatter properties inserted between the test mass and radio active chamber to compensate for decay.

57555. E. K. Cole Limited. Improvements in or relating to ionisation chamber assemblies. (June 15, 1955.) Comprise a device of two ionisation chambers, disposed against insulating wall having gaseous communication between means preventing Beta rays from one to another chamber.

57556. E. K. Cole Limited. An improved means for securing a knob to a shaft. (June 17, 1955.) Moulded plastic knob having a centering device secured to the shaft of electrical component for turning. Centering device having mounted on a boss with shaft receiving recess is provided with a concentric hole.

57557. Heberlein & Co., A. G. Improvements in or relating to composite yarns. (June 1, 1956.) Combining one or more yarns of a crimped fully synthetic organic textile fiber with one or more of crimped cellulose rayon.

57558. Dunlop Rubber Company Limited. Wheel or rim for tubeless tyre. Rim or wheel carrier a tyre inflation valve the metal body of which is fixed to the rim.

57559. R. P. Heuer. Improvements in and relating to method of making refractory bricks. (May 24, 1954). [Divided out of No. 53633; ante-dated to January 31, 1955.] Making a refractory brick in a mould having co-operative upper and lower dies and having two or more oxidisable metallic plates which are placed so that moulding at least some of the plates are embedded in the refractory spaced apart.

57560. Made Cognate to application No. 56494.

57561. Societe Nationale De Constructions Aeronautiques Du Sud-Ouest. A device for jettisoning a load from an aerodyne. Comprises a load carrying structure, means to releasably attach a load, the structure being movable.

57562. L. R. F. Harris. Improvements in or relating to time division multiplex communication systems. [Divided out of No. 53131, ante-dated to December 27, 1954.] In which communication between a calling and a called circuit is established over a time division multiplex transmission means containing transmission suppression means.

57563. Ciba Limited. New halogen-androstenes and process for their manufacture. [Addition to No. 48535.] Treating 11, 12- β -epoxide of 3-oxo-androstene compound saturated or unsaturated in ring A which contains in 17-position a free or esterified OH group, an oxo group or an OH group and a lower aliphatic hydrocarbon radical, with hydrofluoric or hydrochloric acid and introducing at least one double bond into ring A.

JUNE 9.

57564. Maschinenfabrik Ruti A.G., Vormals Casper Honegger. A method of feeding the weft bobbins to the automatic bobbin changing arrangement of looms and mechanism for carrying out the method. [Addition to No. 53247.] Combination of a bobbin guide with at least one magazine having guide means.

57565. T. J. Smith & Nephew Limited. Improvements in and relating to adhesive tapes, sheets or the like. The backing is coated with wavy lines of adhesive by the relative movement of the backing and a reciprocating row or rows of fine gets through which the adhesive is ejected.

57566. The Wellcome Foundation Limited. Improvements in and relating to 8-azapurines. A halo or hydroxy substituted pyrimidine derivative is reacted with a thiating agent, or a diamino-mercapto pyrimidine is treated with nitrous acid.

57567. Ciba Limited. Improvements in pest combating preparations. The preparation comprises salts of deferamidine disulphide or monosulphide and derivatives thereof, with a diluent.

57568. General Aniline & Film Corporation. Improvements in process of preparing ester and amide type anionic surface active agents. An acid is reacted with an alkane sulphonic acid salt at 200—320° C. below atmospheric pressure.

57569. The Indian Oxygen & Acetylene Company Private Limited. Improvements in or relating to electric arc welding. (June 13, 1955.) Feeding a consumable ferrous electrode continuously to an arc formed between the electrode and the work along with deoxidizing material in powder form, the arc zone being shielded by a gas shroud containing CO₂.

57570. The Indian Oxygen & Acetylene Company Private Limited. Improvements in or relating to the vaporisation of liquefied gases. (July 15, 1955.) Passing stream of liquefied gas through vaporiser in heat exchange with heated air and recycling the cooled air to vaporiser through heating means.

57571. Bell Brothers (Domestic) Limited. Improved mixing valve for the admixture of liquids of different specific gravity. Comprising a liquid inlet flow control valve, a liquid flow rate indicator, a saturation control valve and specific gravity indicator, all connected series and inlet and outlet connection on opposite sides of saturation control valve and adapted to be connected to a closed saturation vessel.

57572. Babcock & Wilcox Limited. Improvements relating to cyclone furnaces and a method of producing hot gases therefrom. Furnace chamber of circular cross section with means for primary and secondary combustion air and a liquid atomizing burner.

57573. United Kingdom Atomic Energy Authority. Fuel element charging guide for a nuclear reactor. (June 9, 1955.) Consisting of a body defining a symmetrical array of parallel channels, three point support of the body against the face of a moderator structure, a single point locating means and sliding keying means.

57574. Imperial Chemical Industries Limited. New pesticidal compositions. (June 29, 1955.) Basic esters of alkyl phosphoric acids or salts thereof with diluents or carriers.

JUNE 11.

57575. Ateliers De Constructions Electriques De Charleroi. Improvements in mechanism for driving the sound recording and reproducing head in sound recording and reproducing apparatus. Comprising driving member movable to and fro in liquid contained in an enclosure, the member consisting of a piston or vane fast with shaft, and at least one extremity of the piston being provided with a pallet of magnetic material and magnetic means for attracting the pallet in opposite directions alternately to oscillate the piston and shaft.

57576. J. R. Geigy A.-G. New esters of 5-acyl-8-hydroxyquinolines and their use for the control of fungi. By reacting salts of 5-acyl-8-hydroxyquinolines or the free hydroxy compounds with halogen formic acid esters.

57577. Material Industriel S.A. and Constructions Mecaniques S.A. Renens. Light tamping machine. Arms carrying tools are mounted on vibrating frame being part of tool-carrying device, which can be put into vibrating motion by vibrating means comprising eccentric revolving mass, vibrating frame being mounted on the remaining parts of the tool-carrying device by elastic means.

57578. The Strong Electric Corporation. Arc Lamp. Provided with a pair of electrodes adapted to advanced to compensate for burning and arrangement for directing an air stream.

57579. Universal Winding Company. Improvements in or relating to a shuttle for use in a loom. Shuttle being provided with an interior abutment projecting into the path traversed by the bobbin.

57580. Great Lakes Carbon Corporation. Improvements in or relating to filter aids and process of making the same. The filter aid consists of artificially expanded perlitic mineral having an apparent bulk density of 1-6 lbs./cu. ft., has a particle size < 149 microns and 80 per cent. by volume of the aid subsides in water and is free of voids.

57581. The Wellcome Foundation Limited. Improvements in or relating to the process of preparing 6-chloropurine. Heating hypoxanthine with phosphoryl chloride above boiling point of later but below 200° C.

57582. The British Drug Houses Limited. Preparation of 6 α -methyl-3-oxo- Δ^1 -steroids. (June 22, 1955.) Reacting dihydroxy methyl steroid of androstane and pregnane series with aluminium alkoxide in cyclohexanene.

57583. Ciba Limited. A new crystalline antibiotic substance called 'angolanmycin' its hydrogenation products and acid addition salts thereof and process for their manufacture. (June 22, 1955.) A strain of streptomyces eurythermus is cultivated in an aqueous nutrient medium.

57584. Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Ciry. An improved process and apparatus for carrying out mass polymerisation. Polymers or copolymers insoluble in corresponding monomer or monomers are converted into free flowing powder by agitation.

57585. General Electric Company. Hermetically sealed refrigerant compressor units. Motor driving the compressor is cooled by the refrigerant.

57586. Societe Anonyme Pour L'Industrie De L'Aluminium. A process for purifying a solution of alkali aluminate with simultaneous recovery of metallic gallium and vanadium compounds. Electrolysing alkali aluminate solution with cathode of liquid mercury and metallic insoluble anode with terminal voltage of 3 volts.

57587. Societe Anonyme Pour L'Industrie De L'Aluminium. Method for recovering metallic gallium. Electrolysing alumina lye-extracting gallium from mercury with caustic alkali and electrolysing alkali gallate.

57588. Ciba Limited. Process for the manufacture of new acyl compounds of ortho-hydroxyamino aryl compounds. A dihalide of an unsaturated dicarboxylic acid is condensed with a primary hydroxy aryl amine.

57589. Ciba Limited. Process for the manufacture of esters of thiophosphorous acid. A dialkyl halophosphite is reacted with hydrogen sulphide.

57590. N. V. Onderzoekingsinstituut Research. Device and process for manufacturing looped yarns. The gas supply system comprises one or more channels tangentially debouching into the treatment chamber at the thread supply opening.

JUNE 12.

57591. Void.

57592. Klockner-Humboldt-Deutz Aktiengesellschaft. Filter for dust carrying gas, especially hot dust containing gas. (May 4, 1956.) [Addition to No. 57532.] Wherein wires are arranged within a channel which is disposed vertically.

57593. J. R. Geigy A.-G. Process for the production of cyclo-aliphatic 1,2-diamines. By heating a halogen ketone with urea, hydrogenating the imidazolone obtained to imidazolidone and hydrolysing the latter.

57594. J. R. Geigy A.-G. Process for the production of new pyridazine derivatives and their use as fungicides. By reacting trichloro methane sulphenyl chloride with a hydroxy or mercapto pyridazine.

57595. Commissariat A L'Energie Atomique. Improvements in nuclear reactors including horizontal graphite bars. Forming parallel rows, each row consisting of a plurality of bars disposed end to end, the whole of said rows forming a graphite block provided with fuel element channels.

57596. SKF Kugellagerfabriken Gesellschaft mit beschränkter Haftung. Apparatus used in particular to clean the rollers of spindles of spinning machines and to fill them with fresh oil. Apparatus for cleaning and supplying correct amount of fresh oil to the spindle bolsters in a comparatively short time.

57597. The Dow Chemical Company. Ethylene polymer filament and method of making same. Melting a composition of an ethylene polymer of a density of at least 0.94, imparting filamentary shape to the molten polymer stretching the same to from 5 to 10 times its original length at temperature in the range of 55 C. to 5 C. below the melting point of the polymer and cooling the product.

57598. The Indian Iron & Steel Company Limited. Improvements in or relating to flushing apparatus for water closets. Having piston with apertures normally covered by a disc which is smaller than the piston and which is loosely and concentrically mounted on the piston rod above the piston and the lower part of entrance limb of syphon tube having one or more projections that limit the upward movement of the piston but not of the disc.

57599. The British Thomson-Houston Company Limited. Improvements in and relating to motion limiting means particularly for travelling cranes. (June 13, 1955.) Signal circuits provided on adjacent cranes influence circuits to operate means for controlling the drive of each crane.

57600. Ciba Limited. Process for the manufacture of heterocyclic compounds. Treating acylamino compound with an agent which splits out water.

57601. Murphy Radio Limited. Plastics and a method of preparing the same. Copolymerising urethane from castor oil with liquid mono-functional monomer having heavy metal acceleration therein in presence of peroxide catalyst.

57602. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Process for the manufacture of carotenoids. 2,6,11,15-tetramethyl-hexadeca-hexaen-(2,4,6,10,12,14)-yne-(8)-dial-(1, 16) is condensed with a geranylene-triaryl-phosphine which

may be hydrogenated, and the central triple bond of the compound is catalytically hydrogenated.

57603. V. R. Sonti. Improvements in or relating to compositions for preserving wood, bamboo and like ligno-cellulose materials against rot, fungus, wood destroying insects and fire. Comprises boric acid and soluble salts of copper, chromium and arsenic.

JUNE 13.

57604. United States Steel Corporation. A Speed control system for mill stands and a method of hot-rolling breakdown into strip by speed control of the stands. Constant gage is attained in the leading and trailing ends by speed controlling of motors attached to stands.

57605. Esso Research and Engineering Company. Process for regenerating platinum catalyst in a reforming process. Purging catalyst both before and after the step of regenerative burning of carbonaceous deposit.

57606. Calumet and Hecla, Inc. Apparatus for forming fins on metal tubes. Comprises a floating mandrel of stepped diameters located inside a tube, reducing finning rolls and means for relative motion between tube and rolls.

57607. Pending.

57608. Union Carbide and Carbon Corporation. Heating finely-divided solid reactants. (March 2, 1956.) Carbon conductor bars are embedded in the charge.

57609. Mid-Century Corporation. Process for preparing dimethyl terephthalate of at least 99.9 per cent. purity. (May 2, 1956.) Reacting terephthalic acid with methanol in presence of low activity catalyst fractionally crystallising dimethyl terephthalate from reaction product mixture in methanol.

57610. Rubery, Owne & Co. Limited. Improvements relating to apparatus for use in the casting of metals. (June 24, 1955.) Having a plurality of traversable moulding box receiving units, each of which is presented at a moulding box loading station a pouring location and a moulding box unloading station, and each of which incorporates, a moulding box clamping means releasable automatically for loading and unloading stations.

57611. Ciba Limited. Process for the manufacture of new acylamino-compounds. Condensing dicarboxylic acid having COOH groups connected by bridge of two-carbon-atoms, one being attached to hydroxy group with primary arylamine having hydroxy group adjust to amino group.

57612. Metropolitan-Vickers Electrical Company Limited. Improvements relating to dynamo-electric machines. (June 14, 1955.) Pump means communicating with the conductor cooling ducts for causing cooling fluid to flow therein.

57613. W. Ritzerfeld and G. Ritzerfeld. Improvements in or relating to method of printing and rotary duplicating machines for performing such method. Portions or lines of text for printing selected by operating electric switching contacts allocated to each portion or line: printing effected through electrical control of co-operation of two printing elements dependent on the setting of the contacts.

57614. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for preparing α -amino- β -hydroxycarboxylic acid amides. [Addition to No. 57719.] Reacting aryl diazonium salts with amides.

57615. Die Designs Proprietary Limited. A pouring spout for use with containers. Comprises a circumferential groove at its inner end to releasably hold the contain material at outlet and an external flange at outer end to prevent spout to be misplaced.

57616. G. S. Kulkarni. Disc for a device for extruding flour in paste form. Outer rim provided with three movable arms, raised mid portion with holes on it, and the mid portion pressed down to form a conicular, tube like orifice.

JUNE 14.

57617. R. M. G. Menon. A bullock-drawn Sugar-cane Planter. A fore-carriage and a trailed ridger unit drawn by fore-carriage, a chute through which cane setts dropped and a fertilizer distributor.

57618. S. CASANOVA Esteve. Improvements relating to the manufacture of fibro-cement pipes. Fibro cement mixture is injected in a mould forming successive layers from the circumference towards the centre.

57619. Nyegaard & Co. A/S. Process for the producing of a substance which causes leucocytosis. Aqueous liver extract is treated with alkali, an acetate is added, the precipitate is dissolved in water, the solution is treated with an acid ion exchanger, the solution is separated, and treated with basic ion-exchanger which in turn is treated with alkaline solution.

57620. Siemens & Halske Aktiengesellschaft. Improvements in or relating to high-frequency cables. High frequency transmission lines provided with single or multilayer screens of magnetisable material, each screen or at least one layer of each screen being such that its permeability is unchanged by magnetisation due to alternating power current in power feeder leads of the cable.

57621. Ciba Limited. Manufacture of heterocyclic compounds containing two oxazole rings. Wherein an acylamino compound is treated with an agent that splits out water.

57622. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Process for the manufacture of β -carotene. By subjecting 2, 6, 11, 15-tetramethyl hexadeca-hexaen-(2, 4, 6, 10, 12, 14)-yne-(8) diol-(1, 16) to a condensation with a β -cyclogeranylenetriaryl-phosphine and to catalytic partial hydrogenation and to isomerization.

JUNE 15.

57623. Mid-Century Corporation. Process for the preparation of tri-isopropylbenzene. Reacting 2.4 to 3.5 mols of propylene with 1 mol of benzene in presence of acid reacting Friedel-Craft type alkylation catalyst.

57624. American Steel Foundries. Improvements in a railway car coupler. The area of the lower abutment surface located inboardly of the majority of the area of the upper abutment surface.

57625. James North & Sons Limited. Improvements in or relating to industrial protective clothing. Protective clothing having a raised pattern giving reinforcement and anti-slip properties.

57626. James North & Sons Limited. Improvements in or relating to protective gloves, mitts and the like. Longitudinal thumb seam of the base fabric extends along the inside wall.

57627. G. K. White. Improvements relating to protective gloves, mitts, boots and shoes for workpeople. Dipping base fabric in a plastic material, allowing partial impregnation of the inner layer.

57628. Canadian Celanese Limited. The manufacture of cellulose esters, of aliphatic acids. Esterifying cellulose with an aliphatic acid anhydride in presence of sulphuric acid and an aliphatic acid.

57629. Ciba Limited. Process for the manufacture of α : β -di-[aryloxazolyl-(2)]-ethylene compounds. Condensing ortho-hydroxy-aminoaryl compound with fumaric, malic or aspartic acid and subjecting the condensation product to ring closure.

57630. Nihon Spindle Manufacturing Company Limited. A frame cleaning device by utilizing exhaust air from the suction cleaner in spinning and like operations. Comprises a carriage with blowing nozzles to blow exhaust air sucked from lengthwise duct and reciprocating lengthwise to clean.

57631. Ciba Limited. Process for the manufacture of pyridine carboxylic acids. Passing pyridine or its homologue with air over vanadium pentoxide and silica gel.

57632. Montecatini Società Generale Per L'Industria Mineraria E Chimica. Bodies for electrical resistors, made up of fluoro-carbon resins and a mineral filler, with negligible temperature coefficient of expansion. Lithium-alumina-silicate preferably preheated and a current-conductive material are added to the resins.

JUNE 16.

57633. Void.

57634. V. K. G. Menon. Improved spring-operated Horn-gap fuse for High Tension circuits. In which the swinging arm and horn are formed by means of an extension of the spring wire bent into L form.

57635. Ciba Limited. Manufacture of 19-nor-androstane compounds. 1:3:5(10)-1-methyl estratrienes containing in 3-position an etherified hydroxyl group and in 17-position a hydroxyl group, an oxo group or an -OH group and an aliphatic hydrocarbon radical are reduced with an alkali metal in the presence of a nitrogen base and an alcohol and the reaction products are hydrolysed.

57636. Void.

57637. Void.

57638. Ciba Limited. Process for the manufacture of new azole compounds. Condensing thiomalic acid with ortho hydroxy amino aryl compound.

57639. Theodor Ruetz. Burner for cigarette-lighters and cigarette-lighters provided therewith. (November 28, 1955.) Void after publication. Comprising fuel reservoir, burner, fuel vehicle connecting the reservoir to the burner, a cavity throughout which fuel vehicle extends, communicating with reservoir through pressure reducing orifice located above fuel surface, and with atmosphere through flow-resisting passage also adapted to receive fuel vehicle, the supply of fuel from reservoir to cavity takes place as a function of the differential pressure between the cavity and inner space of reservoir.

57640. Pending.

57641. International Anemostat Holding Company. Air outlet device for ventilating apparatus. Element disposed transversely across the path of flow of supply air has laterally spaced apart rearwardly opening channels.

57642. International Anemostat Holding Company. High velocity air distribution apparatus. An attenuation chamber which is in communication with a plenum chamber having an inlet for air has an outlet device connected to it.

57643. A. Ammal. Improvements in or relating to files. Single sheet of card board folded so as to form three small folds within two other flaps or cover and clamping means.

JUNE 18

57644. Olin Mathieson Chemical Corporation. Synthesis of steroids. Subjecting a steroid to the action of an enzyme of a micro-organism of the genus *coniothyrium*.

57645. Glaxo Laboratories Limited. Improvements in or relating to compositions containing griseofulvin. (June 22, 1955.) Griseofulvin dissolved in a solvent selected from the class consisting of water miscible N-alkyl amides of aliphatic acids.

57646. Joseph Lucas (Industries) Limited. Brush or other contact holders for dynamo electric machines and other electric apparatus. (June 23, 1955.) Holder comprising two toggle-like links, one carrying a brush or provided with contact piece, and a spring or springs acting on links, holder being secured to a support engaging therewith under action of the spring or springs.

57647. Void.

57648. Imperial Chemical Industries Limited. Process for the manufacture of new quaternary salts. (July 20, 1955.) By reacting γ - γ' -dipyridyl and ethylene glycol diester.

57649. Ciba Limited. Process for the manufacture of α : β -Di-[arylazolyl-(2)-]ethylene compounds. Treating azole compound with an agent capable of splitting off water.

57650. Farbenfabriken Bayer Aktiengesellschaft. New phosphoric and thionophosphoric acid esters and a process for their production. (August 11, 1955.) Reacting dialkyl phosphoric or thionophosphoric acid monohalide with cyclic dicarboxylic acid oximide when alkyl group has not more than 4 carbon atoms.

57651. Farbenfabriken Bayer Aktiengesellschaft. Process for the decomposition of titanium ore. (April 18, 1956.) Treating with one and half times the excess quantity of H_2SO_4 than that required stoichiometrically of 45 per cent.—75 per cent. concentration.

57652. Standard Telephones and Cables Limited. Improvements in or relating to arrangements for generating plurality of carrier waves. (November 28, 1955.) Including two sources of basic waves and means for obtaining odd and even harmonics from each basic frequency.

57653. Huttenwerk Oberhausen Aktiengesellschaft. Process for the manufacture of a partially refined metal for use in the production of steel in an open hearth or electric furnace. Pig iron with a phosphorus content exceeding 0.3 per cent. is pre-refined in a drum lined with ceramic material into which is introduced a blast enriched with oxygen by nozzles projecting into the drum.

57654. G. Augereau. Axle-box for railway rolling stock or other vehicles. Comprises an inner bearing in which axle journal rotates, outer body mounted on the chassis and a resilient ring forcibly inserted between them.

57655. Chas. Pfizer & Co. Inc. Epi-derivatives of tetracycline compounds. Contacting a tetracycline compound with aqueous solutions or organic solvent aqueous solution at a pH of 3 to 6 and then separating the epi-derivative.

57656. J. G. Spitzer. Package containing a lather producing composition. Comprising a container containing a composition for producing lather consisting of a mixture of soap or detergent solution and a volatile propellant in liquid phase.

57657. J. J. Aman. Improvements in or relating to the thermal decomposition of certain chlorides and sulphates. The salt is disintegrated in liquid or slurry form into a suitably directed spray which is contacted with a stream of hot gas in the presence of water vapour thus dehydrating and decomposing the particles, and the gaseous products are collected.

57658. S. Ramanathan and B. B. Ajmani. Improvements in or relating to insect dust coating compositions. Chew gum shell oil in admixture with contact insecticides.

57659. S. M. Kapur. Folding base and stand for sewing machine. Accommodates the sewing machine while in non-operative condition and serves as a base and/or a stand for the machine when in working position.

57660. H. W. Barrington. Improvements in or relating to herbicidal compositions. Comprising 3-amino-1, 2, 4-triazole and a compound selected from di or tri chloro propionic acids trichloro oxazole acid and their derivatives, chlorates sodium trichloro acetate, 4-chloro phenyl urea, and pentachlorophenol.

57661. Dunlop Rubber Company Limited. Improvements in or relating to methods of compounding rubber. (July 5, 1955.) [Addition to No. 4759.] Preparing a mixture of hardenable resin and an aqueous dispersion of vulcanizable rubber.

57662. Imperial Chemical Industries Limited. Pharmaceutical compositions. (July 8, 1955.) Comprising polysiloxanes, vegetable or animal fats and emulsifying agents.

57663. Pending.

57664. Nordmark-Werke Gesellschaft mit beschränkter Haftung. p -amino-benzene-sulphonyl-2-aminooxazole derivative and its salts, and a process for the production thereof. A substituted benzene sulphonie acid or a functional

derivative thereof is treated with 2-amino-4, 5-dimethyl oxazole and the product is further reacted with said oxazole.

57665. Montecatini Societa Generale Per L'industria Mineraria E Chimica. High molecular weight copolymers of acetylenic hydrocarbons and process for preparing them. (June 18, 1956.) [Addition to No. 57685.] Copolymerization is carried out in the presence of a catalyst obtained by treating a compound of a transition metal of 4th to 8th groups of the periodic system with an organometallic compound.

57666. Void.

57667. The Colmol Company. Rotary chipping means for use as an articulating mounting of an intermittent mining machine. Comprising a reciprocal plate, upper and lower gear boxes, a pair of rotary shafts, a gear train, chipping heads mounted on the shafts when the plate is reciprocated.

57668. Made Cognate to application No. 57539.

57669. Made Cognate to application No. 57539.

57670. Ciba Limited. Process for the preparation of new pharmacologically active compound. Treating the extract with acids or salts, adsorbing the said extract on an adsorbing agent and then subjecting it to electrodialysis or ionsopheresis followed by crystallisation of raujemidine.

57671. Ciba Limited. Method for preparing tablet granulations. Wherein a mixture, containing a therapeutically active compound, and an excipient in mixed with a lubricating agent, moistened with a solvent containing a binding agent, is formed into granules.

57672. Ciba Limited Long-acting orally administrable solid pharmaceutical preparations. Comprising inner core having therapeutically active substance intimately interspersed throughout a solid mass of gastro-intestinally non-absorbable material, and outer coating comprising a mixture of therapeutically active substance, excipients and binders.

57673. Hammerle A.G. Press of throated or open gap construction. Having inner supporting structure and an outer supporting structure independent thereof, and double guide provided for press slide.

57674. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brining. Continuous diazotization. (August 26, 1955.) Introducing diazotizable amine and diazotizing agent, into precooled solvent or diluent.

57675. Ciba Limited. Stereo-specific process for the manufacture of unsaturated aliphatic amino-diols. By condensing alk-2-yneals (1) with α -nitro-ethanol and then with aldehyde, splitting up the dioxane ring and converting the triple bond into a double bond.

57676. C. F. Boehringer & Soehne G.m.b.H. Process for the production of new esters of chloramphenicol. Wherein chloramphenicol is reacted with an γ -hydroxy acid acylated on the hydroxy group or its functional derivatives.

57677. Ciba Limited. Process for the manufacture of new α : β -di-phenoxazetyl-(2)-ethylenes. Reacting aliphatic unsaturated dicarboxylic acids with monomethyl-o-oxyaminoaryl compounds.

JUNE 20.

57678. Sundal S.r.l. Sabot type footwear made from thermoplastic or thermo-setting material. Having sole and heel made in single piece and presenting at its base a centre depression individuating perimetral upstanding border.

57679. Texaco Development Corporation. A burner construction. Including inner and outer conduits for conveying reactants at elevated temperatures, wherein the inner conduit is replaceable, and means is provided including an expansion joint having a bellows to compensate differential expansion between the conduits.

57680. Chas. Pfizer & Co. Inc. Diquaternary Compounds and preparation thereof. N-aralkyl, N-N' fully substituted alkylene compounds are produced by quaternizing diamines.

57681. American Home Products Corporation. Acyloxy azacycloalkanes and preparation thereof. Heating omega-halo-alkanonitrile with lower alkyl-

3-lower alkylamino-propionate heating resulting compound in presence of alkaline catalyst, decyanating the alkanone thus formed, reacting decyanated compound with aryl Grignard reagent to form 4-aryl-4-hydroxy-azacycloalkane and reacting the latter compound with acyloxylating agent.

57682. R. Wucher. Improvements in and relating to apparatus for moulding plastic materials. Comprising a heated cylinder, a screw rotatable therein having a diffuser head, injection valve means at the forward end of the cylinder and means for effecting relative motion between the screw and the cylinder.

57683. R. Wucher. Improvements in and relating to apparatus for moulding plastic materials. Comprising a heated cylinder having a worm therein, valve means adapted to be opened by engagement with a mould and a rotary plate carrying two or more moulds.

57684. J. A. Eastwood. Improved trolley for use in processing tea leaf. Each pair of supporting brackets has a pair of trays slidably mounted side by side, the two trays being adapted to be pulled outwardly towards or pushed inwardly from, opposite sides of the trolley.

57685. C. A Parsons & Company Limited. Improvements in and relating to spectrometers. (June 21, 1955.) Through the straight edge passing through the axis of rotation of grating the centre of curvature of the part of the circular periphery moves in a straight line.

57686. J. D. Robertson. Improvements in accumulating apparatus for flexible continuous sheets or webs. An apparatus to accumulate without lateral distortion flexible continuous sheets or webs to provide a loose supply at an intermediate stage in the processing.

57687. Metropolitan-Vickers Electrical Company Limited. Improvements in and relating to squirrel cage motors. (June 21, 1955.) Rotor windings comprise an outer cage and an inner cage the inner cage consisting of two groups of axially directed conductor bars.

57688. E. I. Du Pont De Nemours and Company. Hydrogen peroxide bleaching of cotton fabric. Treating woven cotton goods with a surface active agent and a phosphate and rinsing the same, prior to hydrogen peroxide bleaching.

57689. E. I. Du Pont De Nemours and Company. Bleaching textile goods. Continuous passing of wetted out goods through an aqueous peroxide bleaching solution containing peroxide, silicate of soda, caustic soda and a water-soluble boron salt.

57690. Ciba Limited. New 4-thiazoline-2-ones and process for manufacturing same. By treating substituted cycloalkanones with salt or ester of N-R-thiocarbamic acid or hydrolizing a 2-thiocyano-cycloalkanone.

57691. Ciba Limited. A therapeutic composition for the treatment of gastro-intestinal ulcers. Comprising dihydroxy benzene sulfonic acid-formaldehyde poly condensation polymer and pharmaceutical carrier.

57692. Aktiebolaget Nordstrandsventilen. Valve. Comprising a housing with at least two openings, a resilient tubular member extending into housing the inside of tubular member being permanently closed from annular space in housing, a seating around one of said openings at a distance from the tube and a movable member within the tube when operated to urge the wall of the tube into engagement with the seating.

57693. Mannesmann Aktiengesellschaft. Improvements in or relating to slag-containers. Slag container having a pouring device which is in the form of a heated graphite member and cooling means for solidifying any slug.

JUNE 21.

57694. H. Morren, Dr. Sc. Preparation of amino derivatives of 2-phenyl isovaleric acid esters. Monosodium derivative of phenyl acetonitrile is reacted with 1:3-bis (dialkyl or heteroamino)-2-chloropropane.

57695. G. H. Fletcher. Improvements in or relating to dynamo electric machines. (June 29, 1955.) Armature coils with conductors arranged one above the other each coil-being subdivided into a plurality of sections, at least

one section being extended beyond the back end to form a commutator connection.

57696. Commissariat A L'Energie Atomique. Improvements in devices for removing fissionable material rods from a nuclear reactor. Including plurality of guiding chutes running along the end face of the moderator block into which open the channels at the discharge ends thereof.

57697. Carl Zeiss-Stiftung. Method for producing-bodies (changed in their geometrical shape or crystal structure) by means of a beam of charged particles and arrangement for carrying out such method. Producing body of changed shape by temporal alteration of the beam intensity and impacting the body by said beam.

57698. Howa Kokya Kabushiki-Kaisha. An Improvement of a Draft Assembly capable of drafting sliver or roving in a spinning frame. Main draft carried out between apron-top roller and front roller and back draft carried out between cushion top roller and back roller.

57699. British Insulated Callender's Cable Limited. Improvements in or relating to registration devices for catenary-supported contact wires in overhead traction systems. Comprising a member pivotally connected at its upper end to a slide member, a link pivotally connected to the first member.

57700. British Insulated Callender's Cables Limited. Improvements relating to electric insulators. (July 5, 1955.) Of the kind comprising a body of insulating material and a metal pin projecting from the insulator body.

57701. British Dielectric Research Limited. Improvements in or relating to electric capacitors and their manufacture. (June 28, 1955.) One edge of a lacquered metal foil is etched away to leave the lacquer coatings projecting beyond the etched back edge by immersing one end of a convolute winding of the lacquered foil in a dilute aqueous solution of hydrohalogenic acid.

57702. The Metal Box Company Limited. A method of and apparatus for lining components for containers. (June 22, 1955.) Lining a component by disposing globules of a lining compound; heating the same to obtain a continuous uniform thickness and its curing.

JUNE 22.

57703. Olin Mathieson Chemical Corporation. Process for the microbiological conversion of steroids. A steroid Δ^4 pregnene-17 α , 21-diol-3, 20-dione or 21-ester thereof is subjected to the action of the enzymes of fungi of the family tuberculariaceae in an aqueous nutrient medium.

57704. Dunlop Rubber Company Limited. Improvements in or relating to pneumatic tyres. (July 6, 1955.) Inclined bars separated by grooves has traction-augmenting portion with laterally extending face laterally displaced with respect to adjacent portions.

JUNE 23.

57705. Void.

57706. P. Meshberg. Valve means for controlling the discharge of fluid under pressure from a container. Valve disc cooperates with valve stem and a second valve spaced in relation to the first controls the measured charged.

57707. The Permutit Company Limited. Improvements relating to electrolytic cells. (July 5, 1955.) Rigid spacers are inserted in the assembly at intervals to replace flexible spacers.

57708. American Window Glass Company. Apparatus for detaching and removing a sheet of flat glass from an upwardly travelling transversely scored ribbon of glass. Comprises means for slidably mounting vacuum cups relative to their frame work means for preventing their downward retrograde movement and means for preventing longitudinal movement of glass sheet.

57709. Dunlop Rubber Company Limited. Improvements in or relating to pneumatic tyres. (July 5, 1955.) A knife cut or a series of knife cuts disposed around circumference of each rounded shoulder continuous with tyre crown and inclined at an angle or angles of 30° to 60° to mid-circumferential plane for major portion or portions of its length or their lengths.

57710. Perfogit Societa per Azioni. New Polycondensation Products. Polycondensation is effected of compounds having functional groups at the ends of their molecules.

57711. E. K. Cole Limited. Improvements in or relating to ionisation chambers. (July 1, 1955.) Coated inside with an electrically conductive material of high atomic number such as lead.

57712. Pending.

JUNE 25.

57713. Void.

57714. The Firestone Tire & Rubber Company. Improvements in or relating to wheel construction. Rim base having bead seat terminating at one edge of base in outer side flange, and terminating at other edge in radial flange, clamping ring having second bead seat terminating in second side flange, and compressing other bead of tire between radial and second side flange.

57715. Etablissements Clin-Byla. Improvements in or relating to the production of derivatives of phenothiazine. An aminoalkyl ester of phenothiazine N-carboxylic acid is decarboxylated by heat treatment.

57716. H. W. Burrington. Improvements in or relating to windmills of the vaned or bladed type. Vanes mounted for pivotal movement about longitudinal axis turn about their axes, as wind force increases, so as to increase their angle of incidence.

57717. Metropolitan-Vickers Electrical Company Limited. Improvements relating to the reduction of vibration transmission in electrical generators having gear driven exciters. (July 7, 1955.) The exciter is coupled to the armature of the generator by an enclosed gear drive comprising a casing.

57718. Farbwerke Hoechst Aktiengesellschaft Vormalis Meister Lucius and Bruning. An injection syringe for use with cylindrical ampoules. (August 31, 1955.) Comprising syringe casing for receiving cylindrical ampoule a plunger sleeve slidably and nonrotatably mounted in rear end of syringe casing and having spikes at its front end and a piston rod provided with claws at its front end.

57719. Farbwerke Hoechst Aktiengesellschaft vormalis Meister Lucius and Bruning. New α -amino- β -hydroxycarboxylic acid amides and a process of preparing them. (March, 5, 1956.) Treating β -keto-carboxylic acid amide with nitrous acid and reducing in the product obtained isonitroso group and keto group.

57720. F. P. Somogyi. Improvements in or relating to the magnetic and mechanical separation of fine powders. (July 14, 1955.) Agglomerating a mixture of magnetic and non-magnetic particles and applying energy thereto.

57721. S.p.A. "Vetrocoke". Method of removing sulphuretted hydrogen alone or jointly with carbon dioxide and other acid gases from gaseous mixtures. Gases are scrubbed with alkaline arsenical solutions.

57722. Ciba Limited. Manufacture of steroid dehydrogenation products. 3-oxo-steroids are dehydrogenated by a selenium compound in the presence of a metal of second or eighth group of the periodic system to form $\Delta^1,4$ -3-oxo-steroids.

57723. The Singer Manufacturing Company. Feeding mechanism for sewing machines. Disengaging the feed in a sewing machine, effecting minimum lost motion.

JUNE 26.

57724. PECHINEY Compagnie de Produits Chimiques et Electrometallurgiques. Process for preparing dense and filtrable beryllium hydroxide. Introducing solution of beryllium salt and an alkaline solution and keeping pH between 6 and 8.5.

57725. Dunlop Rubber Company Limited. Reaction products of polymers with polyisothiocyanates. (May 4, 1954.) [Divided out of No. 53974; ante-dated to March 7, 1955.] Comprises a reaction product of a polymer with a

polyisocyanate or polyisothiocyanate in admixture with an acyclic organic acid chloride.

57726. General Aniline & Film Corporation. Polymerizable composition comprising an unsaturated polyester and a polymerizable acrylamide monomer. The composition comprises a mixture of an unsaturated polyester of a polybasic alcohol and a polybasic acid and a polymerisable acrylamide.

57727. Joest G.m.b.H. Vibratory conveyor installations. Two or more vibratory conveyors, first of which is driven electromagnetically and remaining by off-centre weights, which in turn are driven by electric motors.

57728. The British Tabulating Machine Company Limited. Improvements in or relating to electronic pulse delay apparatus. (August 25, 1955.) Consisting of a source of timing a pulse generator, and delay means.

57729. Ciba Limited. Process for the manufacture of peptide derivatives. Treating amino acid derivative or peptide derivative having at the amino end an acyl residue, with a basic agent.

57730. A. B. Sanyal. Improvements in or relating to smokeless kitchen stove. Products of combustion escaping through the flue pipe are led to the chimney directly or through a heating chamber.

57731. J. Martin. Releasable coupling for joining two parts together, such as for airman's harness and for straps, webs or the like. Plug component has a lateral notch in part which enters the jaw of the socket component, the latter having a slidable plunger spring loaded to engage the notch.

57732. J. Martin. Harness for airmen. Straps on separate piece of equipment coupled to a riser strap which riser straps are secured in a quick release box.

JUNE 27.

57733. The General Electric Company Limited. Improvements in or relating to mounting arrangements for electrical equipment. (July 7, 1955.) Wherein a number of mounting structures each adapted for the mounting of the circuit components are carried side by side on a common support.

57734. Carrier Corporation. Air conditioning units for use in air conditioning systems. Primary air is supplied to first chamber and a mixture of primary air and heat exchanged secondary air is discharged.

57735. Made Cognate to application No. 57736.

57736. Cluett, Peabody & Co. Inc. Improvements in cuffs for the sleeves of garments. Comprises a face layer and a lining layer of fabric at least three marginal layers upturned and folded upon a transverse line.

57737. Cluett, Peabody & Co. Inc. Method of making a cuff and attachment of same to a sleeve. Comprises a pair of outer face layers and at least one interlining layer, disposed in superposed relationship.

57738. Cluett, Peabody & Co. Inc. Collars for garments. Comprises face and back plies disposed in face to face relation and attached along marginal edges.

57739. E. Starer and Mrs. Sabine Starer. Means for destroying insects and other pests by fumes. Comprising insecticide, potassium chlorate and/or perchlorate and one or more salt which on decomposition produce fire-extinguishing gas.

57740. Ciba Limited. A New antibiotic and process for its manufacture. Cultivating streptomyces A 7909 in a nutrient medium.

JUNE 28.

57741. The Goodyear Tire & Rubber Company. Improvements in automatic brake adjustment device. An adjustment pin slidably received in the piston with a sealing means interposed between them.

57742. The Goodyear Tire & Rubber Company. Improvements in compositions containing rubber. Tar mixed with a free-flowing powder containing 10 to 40 per cent. by weight of rubber and 90 to 60 per cent. by weight of a mineral carrier capable of passing through a 60 mesh standard screen.

57743. J. D. Aucamp. Apparatus for making hollow cementitious articles and method of casting pipes or like hollow articles. Comprises oppositely displaced shutters, rotatably mounted core between them and means for rotating the core from cast pipe.

57744. Keramische Industrie-Bedarfs-Kom. Ges. Paul Gatzke. Kiln for coarse and fine ceramic work, more particularly for uninterrupted operation. Inspection channels are provided below the kiln space.

57745. L. M. Walker. Apparatus for treating surfaces of workpieces by means of streams of particles. Comprises a main housing, an impeller in its lower region to hurl abrasive particles, toward its workpiece region and a hopper to collect particles, fallen by gravity and to feed to impeller.

JUNE 29.

57746. Void.

57747. The Wellcome Foundation Limited. Improvements in and relating to diquatery compounds and the manufacture thereof. (June 30, 1955.) A

R¹
|
diamine of the formula CHO(CH₂)_n-N³-Y-N⁴-, wherein n=2 to 10, R¹ and R²
|
R²

stand for cycloalkyl group or a phenyl group, 'Y' is an alkylene chain (2-10 Carbon atoms) is treated with a quaternising agent.

57748. Acrow (Engineers) Limited. Improvements in mobile batch-weighing machines. (July 1, 1955.) Vehicles equipped with weighing arrangement and load carrying units and bucket elevator for engaging and disengaging of loose materials.

57749. K. Abildgaard-Elling. Method for recovering urokinase from human urine. Contacting urokinase with synthetic cation-exchange resin containing substantial amount of carboxylic groups and eluting absorbate thus obtained with aqueous electrolyte.

57750. M. K. Panjvani. Improved pressure packed aerosols and method of its manufacture. A container open at one end fitted with a curled concave lid having an aperture which is adapted to receive dispenser valve assembly consisting of spring loaded dispenser valve.

JUNE 30.

57751. Dexion Limited. Improvements relating to shelving (July 11, 1955.) Void after publication. Comprises shelf panels and supporting framework, where one or two panels are supported in addition by hangers, suspended from panels or framework.

57752. The Dow Chemical Company. Improvements in or relating to primary cells. Of the dry or nonspillable type, in which the anode material is magnesium.

57753. The Dow Chemical Company. Improvements in or relating to primary cells. Of the dry or nonspillable type having magnesium anodes.

JULY 2.

57754. Les Usines De Melle (Societe Anonyme). Process for producing organic acids by aerobic fermentation. Growing required micro-organism in medium having low sugar content to provide buffer index below 6, allowing pH value of the medium to decrease down to below 3 and adding diluted molasses slowly.

57755. The Firestone Tire & Rubber Company. Device for synchronizing the current output of two tachometer generators. Comprising a first circuit including one generator and a second circuit including the second generator, electrical means connecting said circuits and sensitive to differences in potentials between said circuits so as to control the driving means of said generators for changing their output and eliminating said potential differences.

57756. Ames Irrigation Pty. Limited. Improvements in transportable irrigation pipe lines. Pipeline mounted on wheels and movable in direction right angles to its length. ...

57757. Ames Irrigation Pty. Limited. Improvements in equipments for irrigation systems. Pipe sections releasably coupled to one another and supports in form of skids therefor.

57758. Ames Irrigation Pty. Limited. Improvements in wheels for supporting agricultural apparatus and implements. Formed of sheet metal with hollow cylindrical portion with closure at each end, axle tube extending centrally therethrough and having annular flanges projecting from periphery at each end.

57759. Ames Irrigation Pty. Limited. Metal sprinkler pipe. Having groups of single and pairs of perforations spaced at increasing distance laterally so arranged to throw jets vertical and at different angles.

57760. Hercules Powder Company. Process for the polymerization of unsaturated hydrocarbons. In presence of catalyst comprising (1) reaction product of metal of groups IV-B; V-B; VI-B and VIII of periodic table or manganese with organometallic compound from either alkali, alkaline earth, zinc, earth or rare earth metals and (2) halogen-free organo metallic compound of metal from group stated above.

57761. Organon Laboratories Limited. Preparation of intrinsic factor preparations. An intrinsic factor concentrate is extracted in the presence of a vitamin of the B-12 group, in an aqueous system containing 35-50 per cent. by volume of an alkanol or alkanone with not more than 3 carbon atoms and the liquid phase is separated.

57762. G. Allmann. Drilling head. Comprises at least one rotating plate carrying at least one pick and arrangement for removing products of drilling operation.

57763. R. A. Young. Improvements in or relating to the lubrication of axle bearings and like bearings. Lubricant from axle box or bearing housing conveyed to bearing or journal through the intermediary of one or more rotating rollers.

57764. Sandvikens Jernverks Aktiebolag. Sintered hard metal alloy. A sintered hard metal alloy containing in addition to tungsten carbide, 18-26 per cent. TiC, 8-24 per cent. TaC/NbC and 8-13 per cent. by weight of auxiliary metal such as Co, Ni and/or Fe.

JULY 3.

57765. Imperial Chemical Industries Limited. Improvements in the production of copolymers of butadiene 1, 3 and methyl methacrylate by emulsion polymerisation, and pigmented dispersions thereof. (July 13, 1955.) Polymerising 50-72 per cent. by wt. of methyl methacrylate and butadiene in presence 0.05 per cent. by wt. of ionic emulsifying agent adding non-ionic emulsifying agent after 30 per cent. of monomers are copolymerised.

57766. British Nylon Spinners Limited. Improvements in or relating to the twisting of textile filaments. (July 19, 1955.) False twist imparted by twist tube having at least at one end of its internal surface composed of abrasive material having high co-efficient of friction.

57767. G. L. Wallis. Apparatus for distributing fertiliser, seeds or powder or liquid substances on the ground. Comprising a wheeled hopper having an outlet closed by a rotatable, roller and fitted with flexible and resilient scraper to prevent discharging excess substance.

57768. The A. P. V. Engineering Co. Private Ltd., and J. Thompson. Process and distillation plant for the production of rectified spirits, either alone or simultaneously with absolute alcohol. Wherein the alcoholic vapours from the wash column, operating under a pressure of at least 15 pounds, are condensed to heat the rectifying column and the spent wash is used to preheat the fermented feed wash.

57769. Elektrokemisk A/S. Improvements relating to the cleaning of gases from aluminium furnaces and to the recovery of fluorine therefrom. (May 22,

1956.) Washing gases with a fluorine absorbing washing liquid whose pH is less than 7.

57770. J. R. Geigy A-G. N-acylated hydroxybenzylamino phenols. Reacting carboxylic acid or a functional derivative thereof with hydroxybenzylaminophenol.

57771. Olin Mathieson Chemical Corporation. Process for the preparation of 10-(aminoalkyl)-trifluoromethylazaphenothiazines and their salts. A 2-(2'-aminophenylthio)-3-nitropyridine or its N-acylated derivative is interacted with a base.

57772. The British Thomson-Houston Company Limited. Improvements in and relating to electrical lamps. (July 21, 1955.) Lead wires sealed through the neck portion, the neck having projections formed integrally therewith to fit in a lamp holder suitably adapted.

57773. Societe Anonyme Des Manufactures Des Glaces Et Produits Chimiques De Saint-Gobain, Chauny & Cirey. New glass compositions. (June 20, 1956.) Containing less than 5 per cent. B_2O_3 , 7 to 10 per cent. lime and 2 to 5 per cent. magnesia.

57774. Societe Anonymes Des Manufactures Des Glaces Et Produits Chimiques De Saint-Gobain, Chauny & Cirey. New glass compositions. (June 20, 1956.) Containing less than 5 per cent. ZrO_2 and/or TiO_2 0 to 5 per cent. boric anhydride, 7 to 10 per cent. lime and 2 to 5 per cent. magnesia.

57775. R. Y. Sanders, Jr. Marked pharmaceutical tablet and method of marking the same. Providing identifying indicia on coated core and covering it with transparent material.

57776. Ciba Limited. Manufacture of new dehydrosteroids. A double bond is introduced in the 1, 2-and/or 4, 5-position of 3-oxo-17 β -hydroxy-androstane or testane compounds saturated in 1, 2-and/or 4, 5-position and having in 17 α -position a radical- CH_2 -R (R=aliphatic hydrocarbon radical having 1-3 carbon atoms), or Δ^1 , 3,17-dioxoandrostadiene is reacted with a metal organic compound.

57777. H. Erlenmeyer. Process for the manufacture of derivatives of 4-hydroxy-isophthalic acid. Splitting of one ester group of diester of 4-hydroxy-isophthalic acid reacting with ammonia or amine.

57778. Ciba Limited. Process for the manufacture of indigoid dyestuffs. Condensing 8-halogen-1:2-naphthoxythiophene with isatin or a halogenated derivative thereof.

57779. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Bis-(piperidylmethyl)-phenols and process for the manufacture thereof. A phenol bearing an alkyl or an aralkyl group in the p-position is reacted with two equivalents of formaldehyde and two equivalents of piperidine.

57780. J. Meimberg. Spinning device with a combing and a withdrawing device. Combing device supported by a rotary supporting member and combing and withdrawing devices are rotatable about each other at a slight differential speed.

57781. Lane-Wells Company. Improvements in well perforating devices. Having a plurality of shaped charges disposed in spaced array and supported by a retrievable gun body removable from the borehole.

JULY 4.

57782. Marconi's Wireless Telegraph Company, Limited. Improvements in or relating to radio distance measuring systems. (July 12, 1955.) Of the kind wherein the distance between two stations is ascertained by measuring in terms of the phase shift of a modulating frequency the propagation time in effecting radio transmission from one station to the other and back again.

57783. National Malleable and Steel Castings Company. A rigid-jawed car coupler whenever equipped with lock-set means. A movable abutment member disposed in the coupler head and adapted for abutting engagement with operating lever to maintain the lock in lock-set position.

57784. Rohm & Haas Company. Pesticidal compositions. The composition comprises a toxicant of the formula $(CH_3)_2NOCO-A-CH_2Y$ (A=phenyl or alkyl-

nitro-or chloro-phenyl; Y=dialkylamino, N-piperidino-N-morpholino or N-pyrrolidino) and a non-phytotoxic carrier.

57785. Simplex Electric Company Limited. Improvements relating to electric lighting fittings. Tubular metal body, covered with a non-corroding resilient skin which encases the circuit components.

57786. Farbenfabriken Bayer Aktiengesellschaft. Copper containing trisazo dyestuffs. Coupling tetrazotized 4, 4-diamino-diphenyl with 1 mol of hydroxybenzene-2-sulphonic acid and 1 mol of copper complex of monoazo dyestuff obtained from diazotized-1-amino-2-hydroxy benzene and 1, 3-dihydroxybenzene.

57787. United States Rubber Company. Improvements in method of making microporous material. (March 31, 1956.) Heating under pressure a mixture of a thermoplastic resin and silica hydrogel, shaping the mixture into desired form, cooling the shaped mixture and finally releasing it.

57788. Societe Anonyme Schobesta. Improvements in or relating to nuts. (May 24, 1956.) Comprises a recess cut into base of two threads and a braking member having portions bearing against the two thread crests and of resilient material.

57789. Hercules Powder Company. Improvements in or relating to process for polymerizing olefins. Ethylenically unsaturated hydrocarbon is contacted with a catalyst.

57790. Montecatini Societa Generale Per L'Industria Mineraria E. Chimica and K. Ziegler. Catalysts for the polymerization of olefins and process for preparing them. (July 2, 1956.) Reacting halogenated organic compound with titanium alloy.

57791. Made Cognate to application No. 57776.

57792. Made Cognate to application No. 57163.

57793. Void.

57794. Void.

JULY 5.

57795. Braithwaite & Company (India) Limited. Improvements in and relating to load lowering and lifting. (July 9, 1955.) Comprises an escapement gear subject to controlling conditions and having engagement with rotatable toothed members biased by spring or other means.

57796. American Home Products Corporation. Therapeutic composition for the treatment of ulcers and infected wounds and process for preparing the same. Comprises an antibiotic, an enzyme and a diluent and film-forming agent.

57797. The Dow Chemical Company. Improvements in or relating to method for removing volatile ingredients from thermoplastic polymer compositions. Heating a mixture of non-volatile polymers of vinylidene compounds and vaporizable organic ingredients.

57798. Schiff & Stern Gesellschaft m.b.H. Injector. A mixing chamber is provided with the steam nozzle in the steam nozzle and water conduits extending through the steam chamber.

57799. E. K. Cole Limited. Improvements in or relating to apparatus for detecting radioactive radiation by means of an ionisation chamber. Means are provided for repeatedly changing the potential of a deflecting electrode and for amplifying the A.C. potentials obtained at two collector electrodes resulting from deflection of ions in the chamber.

57800. E. K. Cole Limited. Improvements in or relating to ionisation chambers for use in conjunction with a radioactive source. [Addition to No. 55776.] Housing a foraminous collector electrode which is permeable by beta radiation and in which an extension from the metal wall extends within the collector electrode.

57801. Void.

JULY 6.

57802. Void.

57803. The Indian Oxygen & Acetylene Company Private Limited. Improvements in or relating to apparatus for the storage of liquefied gases of low boiling point. (July 7, 1955.) Outer vessel spaced from inner vessel by buffer springs located in evacuated inter space.

57804. The Singer Manufacturing Company. Zigzag sewing machine. Providing a means for adjusting the spring bias applied to the sewing gate in which the needle-bar is endwise.

57805. Siemens-Schuckertwerke, Aktiengesellschaft. Mould of artificial material or the like substances for the manufacture of articles such as cable fittings of cast resins. The mould is made of transparent foil of artificial material wherein the mould remains on the cast body.

57806. Hytakos A. G. A device for tying a thread round an object and for knotting the thread ends. A circulating member provided with a mushroom-type thread drawer is arranged round the object which member draws thread over a thread guide cam and a knotting hook.

57807. The Clyde Rubber Works Company Limited and S. Tippet. Pad for use with flat bottomed rails. (July 13, 1955.) At least part of each of the two opposite main faces of elastically deformable slab is formed with multiplicity of spaced protuberances.

57808. Void.

57809. Void.

57810. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Process for the manufacture of carotenoids. Condensing lithium acetylide with 9-[2', 6', 6'-trimethyl-cyclohexen(1')yl] 3, 7-dimethylnonatrien-(2, 4, 6, 8)-al-(1), hydrolysing the resulting condensation product, condensing the product with 8-[2', 6', 6'-trimethyl-cyclohexen(1')-yl]-6-methyl-octatrien-(3, 5, 7)-one-(2) by means of Grignard's reaction, hydrolysing and treating the hydrolysed product with lithium hydride.

57811. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Process for the manufacture of carotenoids. Condensing acetylene at both ends by metal organic reaction with C_{10} -aldehyde, hydrolysing the resulting metal organic condensation product and treating resulting C_{10} diol with lithium aluminium hydride.

57812. Made cognate to application No. 57633.

57813. Void.

JULY 9.

57814. P. C. Gandhi. Improved collapsible steel shutter gate and the like. [Post-dated to April 8, 1957.] Plurality of pairs of plates are sequentially arranged end to end and locked within vertical pintles.

57815. British Telecommunications Research Limited. Improvements in or relating to automatic telephone systems. (July 11, 1955.) Arrangements responsive to dialling operation record information on drum.

57816. The Dow Chemical Company. Improvements in or relating to method for exterminating insects, molds, and nematodes and compositions for carrying out said method. By exposing matter infested with organism to a lethal concentration of the vapours of sulfutyl fluoride.

57817. Eli Lilly and Company. Improvements in or relating to preparation of amides of lysergic acid and novel mixed anhydride useful in such preparation. Reacting sulfur trioxide with lysergic acid or its basic salt and reacting the mixed anhydride thus obtained with nitrogeous base.

57818. Wisconsin Alumni Research Foundation. Improvements in or relating to process of preparing oligomycin and the oligomycin resulting from said process. Oligomycin producing organism is grown in an aqueous nutrient broth.

57819. The Britannia Engineering Company Limited and Kali Charan Mitter. Catch handle locking device for single wire railway signal interlocking lever frames. A rocking lever which moves in conjunction with the catch handle actuates the plunger of the lever frame locking box.

57820. C. Arunachalam. Improvements in or relating to jacquard machines. The needles are actuated by a series of feelers, each feeler being independently pivoted and adapted to actuate the needle corresponding thereto.

57821. Montecatini Societa Generale Per L'Industria Mineraria E Chimica. Process for the preparation of some -derivatives of dialkyldithiophosphoric acids with a double amide function in the molecule and disinfecting compositions prepared from said compounds. Reacting bis chloroacetamide of a diamine with diethyl dithiophosphate.

57822. Shri Ram Institute For Industrial Research. Improvements in spray drying. By spraying the material in a drying medium in a spray drier wherein the said medium is recirculated.

JULY 10.

57823. United States Steel Corporation. Current density indicator and control. Comprises a potentiometer with a resistor and a movable arm, an ammeter having a field, electrical means connecting one side of said field to said arm.

57824. Imperial Chemical Industries Limited. Process for the manufacture of new organic nitrogen compounds. (July 21, 1955.) Formaldehyde is reacted with compounds containing at least two amide or carbamic ester groups each nitrogen atom bearing as substituent an alkyl or substituted alkyl radical.

57825. Imperial Chemical Industries Limited. Improvements in and relating to the production of amines. (August 4, 1955.) [Addition to No. 46429.] A 4-substituted diphenyl amine is reacted with acetone or methyl ethyl ketone and an excess of hydrogen in liquid phase at 30-300 atmospheres gauge and 100-180° C. in the presence of a suitably prepared cu catalyst.

57826. Carl Freudenberg Kommanditgesellschaft Auf Aktien. Improved process for the production of porous, highly absorptive bonded fibre fabrics. (February 15, 1956.) Wherein are used as pore-forming agents water soluble organic compounds of the formula $RHN-C''-NH_2$.

57827. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Process for the manufacture of an isoxazolidone compound. Acylating α -amino- β -chloro-propionic acid with halogenated acetic acid, converting the product to acid halide by means of halogenation agent, reacting the acid halide with hydroxylamine, cyclizing and saponifying the product.

57828. Universal Oil Products Company. Process for the hydrogenation of benzene to cyclohexane. Subjecting benzene, hydrogen and cyclohexane to the action of hydrogenation catalyst in a plurality of contacting zones.

57829. Void.

JULY 11.

57830. Void.

57831. Strategic-Udy Metallurgical & Chemical Processes, Ltd. Process for the production of ferromanganese from high-grade manganese-bearing materials. (September 9, 1955.) Passing the ore in the form of a hot calcined charge into electric furnace and onto the composition charge and onto the surface of a molten slag bath, subjecting the charge to the action of a controlled amount of solid carbonaceous reducing agent.

57832. Strategic-Udy Metallurgical & Chemical Processes, Ltd. Process for the production of ferromanganese from low-grade manganese-bearing materials. (September 9, 1955.) Passing the ore in form of a charge into a covered electric furnace and onto the molten slag, subjecting the charge to action of reducing agent at 1300-1500° C.

57833. Strategic-Udy Metallurgical & Chemical Processes, Ltd. Process for the production of ferromanganese products from manganese-bearing materials. (September 9, 1955.) Passing the material in form of charge into a covered electric furnace onto the molten slag and subjecting the charge to the action

of a low-phosphorus ferromanganese alloy reducing agent at a temperature of 1300-1500° C.

57834. National Lead Company. Organometallic compounds and synthesis thereof. Reacting cyclopentadiene or substituted cyclopentadiene with a fourth group metal compound of the formula $(\text{Alkyl-O})_{4-n} \text{Metal-Hal}_n$ where n is from 1 to 3.

57835. Lewis Berger & Sons Limited. Improvements in or relating to the manufacture of alkyd resins and water-base paints made therefrom. (July 15, 1955.) Heating polyethylene glycol polybasic carboxylic acid polyhydric alcohol and drying oil or fatty acid thereof to complete esterification.

57836. Lockers (Engineers) Limited. Improvements relating to means for generating pulsating direct currents. Including a rectifier bridge, a variable resistance connected across the bridge and a continuously variable transformer connected to the A. C. supply.

57837. Remax Limited and A. Bellomo. Universal joints. Comprise a plate and a fork two balls on each side of the plate and engaging groove in plate and fork.

57838. W. A. Kerr. Improvements in tea-crushing and tea-screening machinery. Comprises one or more pairs of rollers of flexible material with circumferential flanges which interdigitate with those of complementary rollers and means for driving them.

57839. Servi Singh and Sarabjit Singh. Composite cement products and method of manufacturing same. Pouring a cementitious mix in a mould, pressing an intake insertion thereon, pouring another layer of mix and subjecting the mould to vibrations.

57840. Dr. K. K. Majumdar. Preparation of Mica Powder. Dry grinding waste mica, screening off the loose ground impurities, subjecting the remainder, to jigging, wet grinding the purified coarse mica particles in a ball or grinding device.

57841. W. Lindemann. Improvements relating to baling presses. (June 4, 1956.) Conveyor device is operated by compressed air or by suction and is connected to the press box in order to deposit the material to be baled inside it.

57842. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to radiation indicating devices comprising a photosensitive part and a luminescent part the emission of which is controlled by the photo-sensitive part. Luminescent part comprises a luminescent substance exhibiting field quenching provision being made of irradiation means for producing luminescence of luminescent part by irradiation.

57843. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to image reproducing devices comprising at least two optically cascade-connected solid-state image intensifiers. Comprising at least two optically cascade-connected image intensifiers, having electroluminescent material and photo sensitive material and between electrodes to which electric voltage is applied, frequencies of operating voltages of successive image intensifiers being so chosen that input level of each intensifier lies within operating range of intensifier.

57844. DeLong Corporation. Jacking mechanism and controls for portable marine platforms. Jacking mechanism effects vertical movement between a portable marine platform and its supporting legs with a jack body positioned substantially parallel to the leg.

57845. Maschinenfabrik Augsburg-Nurnberg A.G. Rail vehicle, the car body of which is supported at each end by means of a cradle on a bogie frame in light-weight construction. Forces directed in the transverse direction of the vehicle is firstly transmitted by way of the cradle and thereafter directly between the vehicle body and the bogie frame.

JULY 12.

57846. J. H. Hoare. Improvements in furnaces or stoves for heating air or the like. Products of combustion heated and directed by fans for drying.

57847. British Telecommunications Research Limited. Improvements in or relating to scanning control arrangements for storage equipment. (July 13, 1955.) Clock control is arranged to give a form of interlaced scanning.
57848. British Telecommunications Research Limited. Improvements in or relating to the storage of electrical signals. (July 13, 1955.) In which a group of signals incoming in sequence are passed by means of a distributor to a register from which it is reconverted into a time sequence by a second distributor and is stored on a magnetic drum and subsequently transferred to a second register and then transmitted over an outgoing line.
57849. British Insulated Callender's Cables Limited. Improvements in or relating to overhead electrification systems for railways. (July 18, 1955.) The steady arm comprises a rigid member in the form of a rod or tube fabricated from resin bonded glass fibre with means at ends to contact a catenary wire and a support.
57850. British Insulated Callender's Cables Limited. Improvements relating to the construction of overhead electric traction systems. (July 25, 1955.) Cross span member consists of a rod of thermosetting or cold setting synthetic resin reinforced with glass filaments which lie substantially parallel to one another.
57851. M. G. Mackeurtan. Process for the treatment of cellulosic materials. (July 28, 1955.) Impregnating cellulosic material with water containing lactobacteriaceae and a nutrient.
57852. Farbenfabriken Bayer Aktiengesellschaft. Process for the manufacture of thiophosphoric acid esters. (May 4, 1956.) A β -halogenethyl sulphoxide or sulphone is reacted with a salt of a dialkylthiol or dialkylthionthiol-phosphoric acid.
57853. The Singer Manufacturing Company. Sewing machine needle-carrier and clamp. A needle clamp adapted to hold needles of different sizes which will accept the needle in one position only.
57854. The Singer Manufacturing Company. Loop-taker for sewing machines. Providing a lock-stitch loop taker disposed upon the opposite side of work supporting surface from the needle and co-operative with the needle in the formation of stitches and a stationary bobbin case carrier.
57855. S. N. Poddar. Improvements in or relating to bobbins. The bobbin flange is formed of successive layers of fibre board, wood and fibre board bonded together.
57856. Void.
57857. Montecatini Societa Generale Per L'Industria Mineraria E Chimica. Process for preparing linear polymers from conjugated diolefins and articles comprised of such polymers. (July 10, 1956.) In presence of catalyst obtained by reacting organo-metallic compound of metal of 1st, 2nd or 3rd group with an oxygen containing compound of metal of 4th, 5th or 6th of Periodic System.
57858. Standard Telephones and Cables Limited. Improvements in or relating to telecommunication exchanges. (September 27, 1955.) Comprises a plurality of incoming channels and outgoing channels and common storage equipment with transferring means.
57859. Farbenfabriken Bayer Aktiengesellschaft. Process for the production of plastics. (November 11, 1955.) Heating polyhydric alcohol with thioether glycol.
57860. Huntington Heberlein and Company Limited. Improvements relating to the cooling of sintered and other solid materials of industrial processes. (November 28, 1955.) Cooling apparatus for sintered materials comprising an endless movable series of trays having beneath the perforated trays, a number of conduits to which gaseous cooling medium has entry through apertures such bottom.
57861. Kanegafuchi Boseki Kabushiki Kaisha. An apparatus for shaping fibre laps in a lap forming machine. A pair of grooved lap shaping rollers are

loosely mounted on a pair of arms positioned in front of said lap forming rollers on which the ejected lap is received for shaping.

57862. D. M. Doctor. Improved electrically operated water fountain. A metal ring washer in a socket is capable of establishing a contact with two studs when a coil is magnetised electrically.

57863. Made cognate to application No. 57633.

JULY 13.

57864. Void.

57865. Void.

57866. Void.

57867. Cluett, Peabody & Co. Inc. Collar support. Comprises a strip of flexible material with width and length equal to height and length of collar and having a tongue at each end to be folded back.

57868. J. R. A. Horsnell. Improvements in or relating to extensible connectors. (February 6, 1956.) Coupling means adapted to be carried on spool and provided with plug and socket means so that a part received in the socket engages supporting structure to prevent rotation of spool.

57869. E. Cvíkl and M. Germani. Welded lattice girder. Is characterised by the fact that upper and lower chord members are connected by V-shaped closed strut members and double diagonal stay members like letter Z.

57870. Farbenfabriken Bayer Aktiengesellschaft. Benzyl esters of thiophosphoric acids and their production. (April 27, 1956.) Reacting salts of 0, 0-di-lower-alkyl-thiol-phosphoric acids with halogenated benzyl halides.

57871. R. W. Crabtree & Sons Limited. Improvements in or relating to web supply mechanism. (July 14, 1955.) Comprising a movable support to carry a running roll from a normal position to a web renewing position, a first tension control means an electromagnetic tension control means, means to respond to change in tension in the web and means to transfer responsive means to electromagnetic tension means.

57872. Imperial Chemical Industries Limited. Ethylene polymerisation process. (August 4, 1955.) Polymerising gaseous ethylene under super atmospheric pressure at 15 to 50° C. in the presence of an ester of hyponitrous acid acting as catalyst.

57873. J. B. Clark. Improvements in centrifugal pumps. Cylindrical casing constituting pump body enclose electric motor and has fixed annular axial passage communicating with impeller fast on the electric motor.

57874. Societe Anonyme Des Manufactures Des Glaces Et Produits Chimiques De Saint-Gobain, Chauny & Cirey. Improvements of arrangements for the manufacture of fibres from thermo-plastic materials such as glass. (February 28, 1956). Molten material is emitted in form of threads by centrifugal force through a body.

JULY 14.

57875. Vyzkumny A Zkusebni Letecký Ústav ; V Letnanech. Feeler member for transforming mechanical value into an electric value. Comprises an exciting circuit a rod shaped ferromagnetic body a device producing torsional stress.

57876. Metallgesellschaft Aktiengesellschaft. Process for the synthetic production of hydrocarbons by catalytic hydrogenation of carbon monoxide. Gasi-fying non-caking coals by gasification agent.

57877. Void.

57878. Remax Limited and A. Bellomo. Improvements in or relating to load carrying members for universal joints. (July 15, 1955.) Comprises abutment members interposed between first and second members and having pair of part cylindrical pads with flat surface abutting the flat surface of the other pad.

57879. The General Electric Company Limited. Improvements in or relating to vibratory conveyors, screens or the like apparatus. (July 22, 1955.) Comprises a supporting framework, a trough, a first spring means and a second spring means.

57880. T. Hindmarch. Improved power transmission gear. (July 21, 1955.) Two shafts are driven by a common compound input pinion.

57881. T. Hindmarch. Improved power transmission gear. (July 21, 1955.) An equalising device is provided to end thrust bearings for balancing the thrusts.

57882. Forsvarets Fabriksstyrelse. Hollow charge projectile. (May 22, 1956.) Consisting of a shell body, a base and a cap and having means capable of being actuated by the turbulence sheath so as to stabilize the projectile.

57883. Garringtons Limited. A new or improved housing for universal joints, flexible couplings and the like. (July 16, 1955.) Comprises a rigid and a flexible housing members, one flexible member being connected to the rigid one and of part-spherical form and of double wall.

57884. Council of Scientific and Industrial Research. Improvements in or relating to magnesium silicate refractories and use of the same. Incorporating TiO_2 into the magnesium silicate refractory composition.

JULY 16.

57885. Void.

57886. Council of Scientific and Industrial Research. A new curing agent for wet salting of hides and skins. Comprises a mixture of sodium chloride, sodium sulphate and ammonium sulphate.

57887. Void.

57888. Council of Scientific and Industrial Research. Improvements in or relating to the production of hydroxy, alkoxy or aryloxy substituted aryl alkyl ketones. By reacting phenol or phenol ether with an aliphatic acid using a mixture of phosphorus oxychloride and anhydrous zinc chloride.

57889. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Process for producing refractory metals of groups IV, V, and VI of the Periodic Table. (March 26, 1956.) Intersecting streams of metal halide and reducing alkali in vessel at high temperature.

57890. H. Hamadait and Dr. M. Neeman. Novel insecticidal compositions. DDT and compound of formula $\text{Cl-C}_6\text{H}_4\text{-SO}_2\text{N(R)}$, where R is n-alkyl radical with 3-7 C-atoms.

57891. Andrew Smith Harkness Limited. Improvements in projection screens. Screen coated with lacquer of crystalline structure of high reflecting power.

57892. Swadeshi Industries Limited. Improvements in or relating to bobbins. Comprising an aluminium barrel, plastic top end piece held at the upper end of the barrel by a hollow flanged bakelite barrel and a lower disc.

57893. Harsco Corporation. A method of, and apparatus for, recovering magnetisable metal-bearing material from scrap. Method comprising feeding the scrap to and through a rotating and apertured tumbler barrel to break away encrusting substances from metal-bearing pieces and particles of the scrap and to separate larger pieces, dividing smaller pieces into two sizes classifications, subjecting each of the said size classifications to the action of a corresponding magnetic separator.

57894. G. Johnson Brothers Limited. Improvements in or relating to ventilators of the louver type. (July 18, 1955.) Slats rotatable about horizontal axes are coupled together and an operating handle provided in rigid relationship to one of the slats.

57895. Ciba Limited. Process for improving fibrous materials and preparations therefor. Applying to the fibrous material a composition containing a latex, an aqueous dispersion of a water-soluble condensation product formaldehyde with an amino compound capable of forming a hardenable resin.

57896. F. J. Collin Aktiengesellschaft. Process for carbonisation of blends from brown coal and bituminous coal. Preheating brown coal between 900-1000° C. and adding it to bituminous coal portion.

57897. British Telecommunications Research Limited. Improvements in and relating to bridge networks. (July 21, 1955.) Consists of capacitance impedance, short circuited transmission line.

57898. British Telecommunications Research Limited. Improvements in and relating to electrical filters. (July 22, 1955.) Comprises a first transmission network and piezo-electric crystal.

57899. L. Grillet. Improvements relating to carburation systems. Branch passage, distinct from the main induction system by means of which part of mixture of fuel and air is withdrawn from induction system.

57900. The Colmol Company. Vertically and laterally expandible continuous mining machine. Comprises a mobile body and a plurality of gear boxes carrying rotary chipping head.

57901. Ciba Limited. Process for the manufacture of new polyglycol derivatives. By hydroxy alkylation or condensation with polyglycol ether or its halide with compound of formula $H_2N-[alkylene-(NH-alkylene)]_m-NH[P]$, 1-H where m is 1-3 and p is 1-2.

57902. Ciba Limited. Process for the manufacture of new polyglycol ether derivatives and use of these derivatives as softening agents for cellulose fibers. By hydroxy alkylation or condensation with polyglycol ether or its halide of acyl compound derived from compound of formula $H_2N-alkylene[NH-alkylene]_m-NH_2$ where m is 1 to 3.

57903. Ciba Limited. Compositions comprising reaction products of methylol-aminotriazine allyl ethers with α - β -unsaturated compounds and capable of drying at room temperature. Comprising metal drier, peroxide and reaction product of methylol amino triazine allyl ether with α - β unsaturated compounds.

57904. Carlo Erba S.p.A. Process for the preparation of organic N-compounds. Reacting aldehyde with amine and subjecting the base obtained to catalytic hydrogenation.

57905. Void.

JULY 17.

57906. Void.

57907. Imperial Chemical Industries Limited. Method and apparatus for consolidating small charges of metal or alloy in divided form by arc melting. (July 22, 1955.) Plurality of charges supported on rotatable cooled hearth located in turn beneath electrode and melted by arc struck between electrode and charge.

57908. Imperial Chemical Industries Limited. Process for the vulcanisation of natural or synthetic rubber. (August 2, 1955.) Incorporating in rubber N-tert-octyl-benzthiazyl-2-sulphenanide.

57909. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Process for producing refractory metals. (March 26, 1956.) Injecting liquid refractory metal halide at a velocity between 3 and 61 meters per second into the molten alkali metal.

57910. Union Carbide Corporation formerly known as Union Carbide and Carbon Corporation. Multi-step reduction process for producing refractory metals. (March 27, 1956.) Initially forming a molten bath of alkali metal, injecting refractory metal halide into the bath in an amount in excess of that required to react completely with the alkali metal to form reduced refractory metal sub-halide or halides.

57911. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Injection nozzle for the introduction of fluids at substantially high velocities into a reaction chamber. (March 28, 1956.) Comprising

an elongated corrosion resistant metal body having an inlet and an outlet end, the inlet end communicating with conduit means for supplying fluids.

57912. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Process for the production of powdered polymers and copolymers of ethylene. (June 6, 1956.) Contacting molten reaction product under high pressure velocity with inert liquid at atmospheric pressure.

57913. Dunlop Rubber Company Limited. Improvements relating to upholstered structures. (October 21, 1955.) Resilient cushioning members comprising bodies of resilient polyurethane foam having a number of linearly extended incision on the surface.

57914. The Mining Engineering Company Limited. Lengths of cable link chains for forming the tension elements or mediums of chain driven belt conveyors. (August 8, 1955.) Special links to receive cross members as tension element.

57915. Schuhfabriken Odermatt & Co. A. G. Piece of leather for shoe soles and heel-taps and a method of making it. Characterised in that it has a profiling whose depressions are at least 1mm. deep, rounded at the crest and bottom and having inclined sides.

57916. Pending.

57917. Dr. K. H. Patel. An improved apparatus for sublimation of volatile materials. Comprising a heating chamber and a condensing chamber welded together the heating chamber consisting of a vessel fitted with a tight locking door and having inside it a plurality of plates spacedly arranged one above the other.

57918. Jet-Heet Inc. Thermally actuated pump. Heat exchanger cooling condenser causes vapour condensation and vacuum thus created.

57919. Geecen Limited and J. E. T. Welland. Improvements in or relating to indicating instruments. (August 16, 1955.) Transparent plate panels with openings showing indicating means disposed at a slight angle to each other and electric light mounted at one edge of the panel.

57920. Societa Farmaceutici Italia. Analogs of steroid hormones substituted in the 4-position and process for obtaining the same. A 4, 5-epoxy-3-ketosteroid is treated with mineral acid in organic solvent.

57921. T. I. S. Fogelberg. Improvements in or relating to devices for securing rails. Clamp of resilient material exerts bearing pressure on upper surface of bottom flange and another portion engages a projecting means associated with the lateral faces.

57922. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to cinematograph film projectors in which the lens objective holder is movable to achieve sharp adjustment. Adjusting device which moves lens objective holder, is secured to projector only, whilst objective holder is readily exchangeable so that the position of the adjusting device can be maintained.

57923. Standard Telephones and Cables Limited. Process for lining metallic tubes with plastic material. (November 8, 1955.) Comprises the steps of inserting the plastic material, forcing the plastic material and heating the metallic tube.

57924. Austland Limited. Improvements in or relating to the breaking of solid material by blasting with compressed gas. First compressor remotely situated from the location is connected to a second compressor, the second compressor compressing the medium to a pressure considerably higher than the first one.

57925. R. Rummel. Process of and apparatus for gasifying fuels. (May 25, 1956.) Fuels, gasifying agents and reaction products are rotated about the axis of the shaft in gas producer.

JULY 18.

57926. C. L. Walsh. Improvements in or relating to the manufacture of cement and cementitious substances. Containing minor proportion of low temperature carbonaceous oil.

57927. British Telecommunications Research Limited. Improvements in or relating to telephone or like systems. (March 26, 1954.) [Divided out of No. 54111; ante-dated to March 23, 1955.] By means of a primary scanning operation a common register is arranged to be associated with a plurality of speech paths.

57928. Vyzkumny A Zkusebni Letecky Ustav. Speed indicator for airplanes. Comprises correction elements connected by a connection link means for deriving performing movements from one place of link and means for correcting deviations of transmitting mechanism.

57929. Boots Pure Drug Co. Ltd. Improvements in or relating to eye drop compositions and the preparation thereof. (July 19, 1955.) Comprising water-soluble salt of p-sulphamido benzamidine in aqueous vehicle containing thickening agent and glycerine.

57930. Fiat Societa Per Azioni. Aircraft equipped with a readily removable container incorporated by the aircraft structure. Readily removable container incorporated by the aircraft structure.

57931. Novo Terapeutisk Laboratorium A/S. Process in producing preparations having a protracted effect, for combating infectious diseases. Particles of antibiotic coated with aluminium salt of fatty acid are suspended in oil.

57932. Erie Resistor Limited. Improvements in electrical capacitors. (November 2, 1955.) Of the type having inner and outer metallised coatings forming the electrodes.

57933. Etablissements Giroud Freres, Les Successeurs de Hugues Giroud & Cie. Machine for the manufacture of textile articles such as velvet, carpets, tugs and the like. A machine for the manufacture of pile articles by preparing bands of erect fibres of equal length and by glueing the bands on a support.

57934. Void.

JULY 20.

57935. Void.

57936. Council of Scientific and Industrial Research. A tunable magnatron. Cathode coaxially surrounding an interdigitating anode which is coupled to a tunable resonator.

57937. Council of Scientific and Industrial Research. Improvements in or relating to the manufacture of aerofoils. [Post-dated to November 12, 1957.] A framework covered with bamboo matting provided with a protective coating.

57938. Council of Scientific and Industrial Research. Aluminising of iron and steel. Aluminising iron and steel by subjecting them to cleansing pickling, fluxing, drying and immersing in molten aluminium the flux used being potassium fluoride.

57939. Void.

57940. The Britannia Engineering Company Limited and R. Krueger. Improved stop motion device for textile spinning or twisting machines. Providing means adapted to be brought into operation by the movement of the detector feeler from its initial operative position for automatically returning the said feeler into a pre-set position.

57941. The Tentor Steel Company Limited. A method of processing steel bars, especially reinforcing steel. Cold twisting and cold stretching a steel bar during the processing zone between two gripping devices.

57942. The Dow Chemical Company. Improvements in or relating to method of making magnesium-base alloy ingot. Comprises dispersing in a first batch of molten magnesium an amount of zirconium equal to between 0.3 and 0.6 per cent. of the weight of magnesium followed by dispersing in the resulting melt an amount of aluminium equal to from about 3 to 5 per cent. of the weight of zirconium.

57943. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to solid-state image intensifiers. Including two parallel electrodes, an

electroluminescent layer interposed between these electrodes and a radiation sensitive layer interposed between the electroluminescent layer and one of the electrodes.

57944. Kabushiki Kaisha Nagata Seisakusho. A water wave height equalizing device for the water dressing chamber in a water dressing machine for coal. Comprising a water tank divided into two compartments having six chambers, crude coal thrown onto a screen through a feeding port and is dressed while moving on a screen by waves of water caused in a water dressing chamber by operating air valves.

57945. Kabushiki Kaisha Nagata Seisakusho. Apparatus for automatically separating refuse and refined coal and removal of refuse in a coal washing machine and the method thereof. Wherein a tube communicates with compressed air reservoir above refuse removing chamber and two sliding plugs attached to a connecting rod moving through said tube.

57946. Kabushiki Kaisha Nagata Seisakusho. A method of grading coal or the like minerals and the machine therefor. By agitating the coal or the like in water or a separating medium by compressed air waves over a bed made of mineral substances having specific gravities higher than that of coal or the like.

57947. Kabushiki Kaisha Nagata Seisakusho. Water dressing machine for coal. Comprising a water tank having two compartments each having three dressing chambers wherein the width of the third chamber is smaller than those of other chambers.

57948. Kabushiki Kaisha Nagata Seisakusho. An apparatus for collecting fine granular minerals floating in water. Wherein a flowing water introducing water is formed by providing a partition wall in the upper part of a tank having an adjusting plate and many overflow troughs.

JULY 21.

57949. Kabushiki Kaisha Nagata Seisakusho. A differential air control valve for a baum washing machine. Piston valve having multiple of inlet and exhaust ports opened and closed alternately by hand wheel driven fulcrum.

57950. Shrimati D. M. Edwards. Device for making plastic seamless neckties. Metal stencil comprising of two metal plates joined end to end and held together by coverstrap and countersunk screws so that plates when joined conform to shape and size of necktie.

57951. Boots Pure Drug Co. Ltd. A process for preparing a dichloroacetanilide derivative. (July 22, 1955.) Reacting 4-hydroxy-N-methylaniline with chloralhydrin in presence of acid binding agent.

57952. Les Usines De Melle. Process for producing polyalcohols, particularly sorbitol, by hydrogenation of sugars. By hydrogenating the corresponding sugars, in the presence of a lower aliphatic alcohol.

57953. Les Usines De Melle (Societe Anonyme). Process for hydrating propylene. By passing propylene through sulphuric acid at a concentration above 60 per cent. and at a temperature below 100° C.

57954. British Insulated Callender's Cables Limited. Improvements relating to overhead electric traction systems. (August 15, 1955.) Distance fitting comprising an insulating member of resin bonded glass fibre provided at each end with means for attachment to a contact wire or to a catenary wire.

57955. G. Duchange. Process of obtaining non-bitter stabilized soya bean flour having perfectly assimilable proteins, apparatus therefor, and the flour obtained by this process. Dry heating soya material spraying it with water.

57956. Weaving Research & Textile Commission Agents Limited. Reciprocatory weft inserting spears for looms for weaving and looms for weaving having such spears. (August 5, 1955.) A reciprocatory weft inserting spear having means for gripping and applying pressure to the weft whilst the spear moves.

57957. Void.

JULY 24.

57958. Council of Scientific and Industrial Research. A primary wet cell. Ferric chloride used as polariser in two fluid primary porous pot wet cells.

57959. Void.

57960. M. K. Panjvani. Improved wick burner stove. Fuel tank, metal tube with inverted U-slots for wick, and a hat-shaped burner closed at one end and open at the other.

57961. Automatic Telephone and Electric Company Limited. Improvements in electromagnetic relays. [Divided out of No. 54291; ante-dated to April 19, 1955.] Knife edge provided by a member which serves also as a retaining clip.

57962. Void.

57963. The Wayne Pump Company. Apparatus for dispensing one or mixtures in selected ratios of two different liquids. Comprising individual flow lines, pumps, meters and control valves for each liquids.

57964. Mechanical Products Inc. Electric switches and circuit breakers. Comprises a combination of a fixed and a movable contact means and a thermostat and a mechanical latches.

57965. Mechanical Products Inc. Improvements in and relating to electric circuit breakers. An electrical shunt connects the contacts for conduction of currents along two separate paths.

57966. Imperial Chemical Industries Limited. Continuous bleaching of cellulosic textile materials. (July 28, 1955.) Passing the fabrics through a bath of trichlorethylene or perchlorethylene, then through alkaline hypochlorite and rinsing with water and passing the fabric through aqueous alkaline solution of a peroxy compound.

57967. Imperial Chemical Industries Limited. Continuous bleaching of textile fabrics made from vegetable fibres. (July 28, 1955.) Treating with trichloro ethylene or perchloroethylene, desizing and padding and steaming with alkaline peroxide solution.

57968. Imperial Chemical Industries Limited. Process for the vulcanisation of natural or synthetic rubber. (August 2, 1955.) Incorporating in the rubber before vulcanisation compounds obtained by reacting benzthiazyl-2-sulphenamide with 1-alkyl cyclohexyl amine.

57969. Chas. Pfizer & Co., Inc. Therapeutic composition. Comprising a novobiocin antibiotic and a tetracycline type antibiotic, the content of former being 10-90 per cent.

57970. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Process for the manufacture of benzhydryl piperidine compounds. By reacting α -[1-ethyl-piperidyl-(2)]-benzhydrol with hydrobromic acid, and then with aqueous alkali and reducing the alkalisation product obtained.

57971. Vickers-Armstrongs (Engineers) Limited. Improvements in or relating to three-roll mills for grinding materials. (August 22, 1955.) Moving second roll towards or away from a plane that includes the axes of one and third rolls, the clearance between the second roll and each of the other two are simultaneously decreased or increased.

57972. Void.

57973. Ciba Limited. Process for dyeing or printing hydrophobic fibrous materials. Dyeing the fibres with a dyestuff containing 1-amino-2-nitro anthraquinone containing in the α -position of the anthraquinone nucleus an acyl amino group.

57974. Void.

JULY 25.

57975. Penta Chemical Industries (Pty.), Limited. Improvements in textile and like fabrics united to polythene. (July 28, 1955.) Applying an adhesive of prepolymerised thermosetting resin to the surface of polythene film and then bonding the textile fabric to said polythene film.

57976. The Dow Chemical Company. Improvements in or relating to stabilization of polyethylene. Comprising polythene and at least one anti-

oxidant selected from the group consisting of norhydroguaiaretic acid propyl gallate and a 4, 4'-bis-2-alkyl phenol compound.

57977. Olin Mathieson Chemical Corporation. Improvements in or relating to fastener driving tool and fastener assembly for use therein. Comprising a hollow holder adapted to be grasped in one hand, a fastener guiding element within forward portion of the holder, a plunger having a drive rod telescoped within rear portion of said holder.

57978. Chas. Pfizer & Co. Inc. Oxytetracycline Salts and Preparation thereof. Amphoteric oxytetracycline is dissolved in an alcohol in the presence of an agent from the group HCl, alkali metal halide, alkaline earth metal halide, zinc halide, and the solution is treated with .02 to .06g./ml. of a hydrogen halide thereby precipitating the hydrohalide salt.

57979. Chas. Pfizer & Co., Inc. Ammonium Salts and Preparation thereof. Harman and tetrahydroharman derivatives are treated with a quaternising agent.

57980. Chas. Pfizer & Co., Inc. Therapeutic composition containing calcium dioxytetracycline and preparation thereof. The composition comprises calcium dioxytetracycline suspended in a concentrated aqueous sugar/sorbitol solution.

57981. International Polaroid Corporation. Light polarizing sheet material and process for forming the same. Comprising a layer of dyeable, transparent, high molecular weight, hydroxyl-containing vinyl polymer, an organic substance comprising amino-substituted linear polymer, a β -aminoethyl ether of polyvinyl alcohol and heteropolymers comprising amino alkoxy-substituted alkane and an ethylenic compound.

57982. Glaxo Laboratories Limited. Improvements in or relating to antibiotics. Antibiotic E.129 is produced by culturing *Streptomyces* E.129 NCIB No. 8792, NRR1 No. 2558 or a mutant thereof in a nutrient medium.

57983. Montecatini Societa Generale Per L'Industria Mineraria E Chimica and G. de Varda. Improvements relating to the production of aluminium by fused salt electrolysis with vertical or inclined cathodes of carbon and aluminium (July 24, 1956.) At least one electrolytic cell having a vertical or inclined wall of cathode carbon, the surface of the wall being formed of cellular material and is contoured to provide a plurality of receptacles adapted to retain molten aluminium.

57984. Montecatini Societa Generale Per L'Industria Mineraria E Chimica and K. Ziegler. High melting polymers of branched chain α -olefins and process for preparing them. (July 24, 1956.) Polymerisation takes place in presence of a catalyst obtained by reacting a halide of transition metal of 4th, 5th and 6th groups of periodic tables with a metallo alkyl compound of a metal of 2nd or 3rd group of periodic table.

57985. N. V. Philips' Gloeilampenfabrieken. Ferromagnetic material. Ferromagnetic material consisting of simple crystals and/or mixed crystals of compounds having a chemical composition corresponding to the formula $BaM^{II}Fe_2^{III}O_{11}$; where M stands for one of the bivalent metals like Mn, Fe, Co, Ni, Cu, Zn and Mg.

57986. T. Sakanoue. An improved continuously cleaning device of the suction type capable of promoting the carding action of the carding engine. Comprising of rotating drum, lead screw suction channel suction pipe, nozzle tube and guide pipe.

57987. Radio Corporation of America. Magnetic devices for controlling electric signals. Consisting of a core of magnetizable material having plurality of apertures provided each with winding through which signalling currents are passed.

57988. Societe Anonyme "Dessins Etudes Outillage Mechanique, D. E. O. M." Improvements in stoves and other apparatus using a combustible gas liquefied under pressure. Comprising a gas container having a perforatable wall, a gas intake head having means to perforate the said wall to create a gas passage.

JULY 26.

57989. Pending.

57990. Imperial Chemical Industries Limited. Safety heating elements for use in blasting devices and compositions suitable therefor. (August 8, 1955.) Containing heating composition of 66.0-45.0 per cent. of guanidine nitrate; 27.0-45.0 per cent. of potassium persulphate and 0.6.0 per cent. by weight of cuprous chloride.

57991. Imperial Chemical Industries Limited. Safety heating elements for use in blasting devices and composition suitable therefor. (August 8, 1955.) Wherein heating composition has 66.0-45.0 per cent. of guanidine nitrate; 27.0-45.0 per cent. of sodium persulphate and 0-10 per cent. by weight of cuprous chloride.

57992. J. Dungler. Improvements in the drying of fabrics, papers, cardboards, and other lengthy materials. [Addition to No. 52379.] Drying the material by simultaneous action of gaseous circulating fluid and radiating element.

57993. J. Dungler. Improvements in clips for tenting machines. The clip has an unrolling means which is constituted by a blade member which unrolls the edge of the fabric.

57994. The Goodyear Tire & Rubber Company. Improvements in tire removing tool. Includes a clamp capable of gripping the wheel flange, a bead unseating assembly connected with the clamp, and a presser member.

57995. Calanda-Stiftung. Process for the production of new 5.5-disubstituted barbituric and thiobarbituric acids. Condensing functional derivative of disubstituted malonic acid with urea, isoureaether, thiourea or guanidine and hydrolysing the monoimines to corresponding acids.

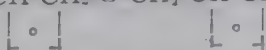
57996. B. D. Kulkarni alias Gambhirarao. An improved wind motor device. [Addition to No. 54731. Post-dated to May 27, 1957.] In which a shaft-fitted with a hub having radially projecting fan blades, to rotate the shaft there is provided a driving mechanism.

57997. Chinoin Gyogyszer Es Vegyeszeti Termekek Gyara R. T. Aluminium salts of substituted salicylic acids and the production thereof. Reacting p-amino salicylic acid or p-acylamido salicylic acid with aluminium hydroxide or alcoholate.

JULY 27.

57998. Void.

57999. Societe Anonyme des Manufactures des glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey. Synthetic resins and method for the preparation thereof. Treating polyamine with condensation product of diglycidyl ether $\text{CH}_2\text{-CH-CH}_2\text{-O-CH}_2\text{-CH-CH}_2$ and anhydride of organic diacid.



58000. Ciba Limited. A new nitrogenous heterocyclic compound and process for its manufacture. P-tertiary butyl-0:0'-dimethyl-phenyl-acetic acid is converted into 2-(p-tertiary butyl-0:0'-dimethyl phenyl methyl) imidazoline.

58001. C. F. Boehringer & Soehne G.m.b.H. Composition for treating diabetes. (September 19, 1955.) Comprising n-butyl sulfanilyl urea and a pharmaceutical carrier.

JULY 28.

58002. Ciba Limited. Process for splitting racemates into their enantiomorphic forms. (July 29, 1955.) d. 1-steroids are subjected to the action of oxidizing enzymes of microorganisms and at least one enantiomorphic form is isolated.

58003. M. D. Price. Improvements in or relating to pesticidal compositions. The composition comprises a pesticide dispersed in a mixture of wax which when molten is a solvent for the pesticide and a plasticiser for the

wax, the wax and plasticiser being such that the pesticide exudes blooms or crystallises at the surface of the composition.

58004. Void.

JULY 30.

58005. O. Muller. Agricultural implement for puddling. The puddling wheel of the tractor has a large diameter at the middle of the wheel than at the ends.

58006. Made Cognate to Application No. 57633.

58007. Council of Scientific and Industrial Research. A process for the manufacture of active carbon from coals and lignites. The material to be carbonised is directly heated by the hot gases obtained by combustion of the gas evolved during carbonisation and by recirculating the hot gases.

58008. Comerio Ercole S. P. A. Method of and device for producing printing fabrics or papers on automatic or semiautomatic fabric printing machines. In every printing sequence, the operation of colour applying spatulae on some of the print squares are interrupted while in rest of the squares colour is applied.

58009. Chas. Pfizer & Co. Inc. Steroids and the preparation thereof. (May 17, 1956.) A 3-keto- Δ -4-steroid having from 18-21 carbon atoms in the carbon skeleton, is contacted with the oxidising activity of an organism of the genus *Nocardia*.

58010. Colgate-Palmolive Company. Liquid detergent compositions. Comprising organic synthetic detergent and water soluble inorganic alkaline builder salt in aqueous/alcoholic medium.

58011. Weaving Research & Textile Commission Agents Limited. Improvements relating to looms for weaving. (August 3, 1955.) Guiding means for maintaining a constant length of weft yarn between the stationary package and the spear at its different positions.

58012. D. Napier & Son Limited. Electric commutators. (August 8, 1955.) A number of slotted bars each having a number of spaced slots extending from one edge are assembled circumferentially around a number of axially spaced parallel rings with insulating material between the rings, and open ends of the slots are then partly closed up.

58013. General Aniline & Film Corporation. Improvements in Diazotizable amine compositions. Comprising diazotizable primary amine compound, an alkalimetal nitrite, non-ionic surface active agent containing polyoxalkylene chain and derived from reactive hydrogen containing compound, water-soluble cationic surface active quaternary ammonium compound, inert organic water-miscible solvent and water.

58014. Ciba Limited. Process for dyeing or printing hydrophobic textile fibres. Heating the materials with an aqueous dispersion of α -hydroxy anthraquinone.

58015. Douglas Fraser & Sons Limited and The British Jute Trade Research Association. Improvements in or relating to a method of and a machine for winding rolls or packages of sliver. Step of varying the frequency of traverse from one to the other end of the roll and back again.

JULY 31.

58016. Automatic Telephone & Electric Company Limited. Improvements in circuit arrangements for converting information from one form to another. (August 6, 1955.) A gas discharge tube is controlled to strike by potentials derived from the markings in the combination.

58017. Automatic Telephone & Electric Company Limited. Improvements in circuit arrangements for counting impulses. (August 4, 1955.) Counting arrangement is provided with an input lead to which the train of impulses are applied.

58018. H. Jetha. Improved drum and barrel printing machine. Consisting of two frames one above the other, a spring loaded frame hinged at one end of upper frame and other end provided with locking handle, guide rails

provided to latter frame in which stencil frame slides a spring loaded frame fitted with squeeze mechanism pivoted on upper frame, pivoted mounted lever with connecting arms connected with pivoted frame, lower frame having rails, and a frame carrying drum supporting mechanism, sliding on latter rails, of two adjustable arms, each with adjustable grip to slide vertically tube on frame and carrying arms with ball bearing wheel on which a drum get supported and rotate with motion of stencil frame.

58019. Imperial Chemical Industries Limited. Arc welding. (August 4, 1955.) Joint to be welded is chilled by means of thin, ductile, fluid cooled metal chills shaped to make close contact with the surface.

58020. The Dow Chemical Company. Improvements in or relating to stabilization of polymerized olefinic materials. Comprising a polymerised olefinic material, 0.01 to 2 per cent. of a non-darkening antioxidant additive substance and 0.1 to 2 per cent. of an ultraviolet light absorbing additive substance.

58021. A. H. Hunt (Capacitors) Limited. Improvements in or relating to electrical capacitors. (August 8, 1955.) Dielectric is synthetic plastic film and the edges of dielectric or the ends of capacitor roll are made rough or irregular before the metal spraying operation for the attachment of terminals.

58022. Klockner-Humboldt-Deutz Aktiengesellschaft. A filtering device for purifying dust carrying gas, particularly hot gas of temperatures between about 100° to 600° C. (June 29, 1956.) [Addition to No. 57532.] Two or more filters are connected to a common supply tube, each filter consisting of a casing in which wires are arranged in a plane, shaking device for the wires, and flap gate at one end of the casing.

58023. Dunlop Rubber Company Limited. Resilient cushioning members suitable for use in upholstered structures. (Addition to No. 57913.) Comprises a combination of two bodies of resilient polymethane foam.

58024. W. J. Kruppa and J. B. Rinckhoff. Carbonization of coal. Oxidizing coal at high temperature for short time followed by rapid cooling of heated coal and carbonizing with flowing stream of non-reactive gas.

58025. Executors of James Mills Limited. New or improved means for securing railway and like rails to base plates. Base plate with rail supporting seat on its upper side and one or more clip engaging abutments on its underside the clips comprising superposed arms connected integrally and resiliently.

58026. J. Jozif, V. Bezouska and J. Krivka. Lock for the disengaging means for transferring the gears of motorcycles or similar vehicles to the basic zero position. (June 1, 1956.) Gear changing gates are spring biased against each other, a plate provided with a dog and locking pins is mounted for rotation on a pivot of the gate.

58027. H. Schenck and W. Wenzel. Improvements relating to melting and heating furnaces. (July 16, 1956.) Refractory lining of arch of the furnace is arranged between spaced iron supports so that it is movable towards the interior of the furnace.

58028. Scripto Inc. Ball point writing unit. Comprising an ink reservoir having at one end a ball point element, and on the other end sealing means comprising a piston system characterized by spaced piston elements in sealing fluid.

58029. National Malleable and Steel Castings Company. Improvements in or relating to a car coupler. Rigid-jawed type coupler comprising locking and lock neutralising means.

58030. Dr. L. Costa and E. Maier. Improvements in and relating to deflector bodies for use with a ship's propellor. Dimension of horizontal transverse axis of all or some parts of the cross-section of bulb greater than that of vertical axis.

58031. Ciba Limited. Manufacture of nor-steroids. Hydrophenanthrene 2-ones are condensed to 18-nor-steroids by the action of a basic agent.

58032. Standard Telephones and Cables Limited. Improvements in or relating to electrical remote supervisory apparatus. (January 20, 1956.) In-

cluding a first and a second group of electrical devices to be supervised, a main scanning switch and a secondary scanning switch.

58033. Standard Telephones and Cables Limited. Improvements in or relating to dry rectifiers. (February 10, 1956.) Comprises a crystal die electrically connected to a metal mount, a metal member held by a glass seal and connecting means.

58034. E. I. Du Pont De Nemours and Company. Heating textile fabrics. Dampened fabrics drying by means of steam flow continuously.

58035. Void.

58036. Void.

AUGUST 1.

58037. Mrs. G. E. Mehra. An apparatus for cooling air. Passing air over a drum made up of a material absorbing water.

58038. Lodge-Cottrell Limited. Automatic voltage regulators. Fractional voltage proportional to variations of input voltage to electrodes of electrostatic precipitator applied to an instrument; actuation of voltage regulator responsive to instrument ensures maintenance of optimum mean discharge electrode voltage automatically independent of operation conditions.

58039. American Home Products Corporation. Preparation of alkylene diamines. Reacting alkylene diimine with aralkyl halide in presence of aliphatic alcohol and reacting N, N'-diaralkyl alkylene diamine so produced with a penicilline salt.

58040. The General Electric Company Limited. Improvements in or relating to cathode ray tubes. (August 9, 1955.) Phosphor screen sandwiched between two mutually insulated conducting layers maintained at different voltages for controlling luminous intensity of the screen.

58041. Pending.

58042. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Electric arc welding system. (April 17, 1956.) Pilot arc circuit provided with direct-current source and each welding-current circuit provided with current source conforming with welding requirements at respective stations, separate contactors being arranged for simultaneous closure by a timer while pilot arcs are operating.

58043. A. Berger. Sealing ring for bearing and other rotating machine elements. The concentric sealing annular part including an abrasion resistant elastic material and non-detachably connected with each other while they are rotatable relative to each other.

58044. Ciba Limited. Process for separating niobium and tantalum from materials containing these metals. Mixture of halides of niobium and tantalum in solution treated with 8 hydroxyquinoline, and then neutralization of HCl liberated so that niobium is preferentially precipitated.

58045. Ciba Limited. Process for the manufacture of reaction products of high molecular weight of polyisocyanates with alkylene oxide addition products. Reaction products of polyisocyanates with alkylene oxides.

58046. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to ferromagnetic material, more particularly for ferromagnetic bodies to be used at frequencies of at least 50 Mc/s, a method of producing such material and ferromagnetic bodies made of such material. Ferromagnetic material consisting of simple crystals and/or mixed crystals of compounds of the formula $Ba Fe_2 II Fe_{10} III O_2$.

58047. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to ferromagnetic material, more particularly intended for ferromagnetic bodies used at frequencies of at least 50 Mc/s, a method of producing such material and ferromagnetic bodies made from such material. Consisting of simple crystals and/or mixed crystals of compounds having a composition of 17.6 mols per cent. BaO 11.8 mols per cent. of CoO and 70.6 mols per cent. of Fe_2O_3 which corresponds to the formula $Ba_2CO_4Fe_{10}O_{11}$.

58048. The Wellcome Foundation Ltd. Method of forming Pyrazolo-(3, 4-d) pyrimidines. (August 10, 1955.) Reacting pyrazolo-3, 4-dicarboxamide

with sodium hypochlorite and converting, if desired, one or both hydroxy groups to mercapto, alkylmercapto, amino or alkyl amino groups.

58049. Westinghouse Air Brake Company. Graduated release type brake controlling valve with improved control reservoir charging control. Arrangement of closing the charging communication for the control reservoir after brake application and for re-establishing the same during brake release.

58050. W. B. Simons Industries, Inc. Improvements in method and apparatus for extracting fibers from fiber-bearing plants. Comprising a rasping roll having blades and a stationary plate having a concave portion, a space for the passage of plants being formed between the roll and plate.

AUGUST 2.

58051. Void.

58052. P. A. Müller. Method of and device for producing creped sheet material. Flat web material is made pliable then creped and stretched by grooving.

58053. J. R. Geigy A.-G. Process for the production of 4-substituted 1,2-diaryl-3,5-dioxo-pyrazolidines. 4-heterocyclic-alkyl substituted 1, 2-diaryl-3, 5 dioxo pyrazolidines are prepared starting from malonic acid derivatives and substituted hydrazobenzene or from the corresponding 4-unsubstituted pyrazolidine by known methods.

58054. Void.

58055. Erie Resistor Limited. Improvements in electrical capacitors. (November 2, 1955.) Hollow metal structure having inwardly directed projections which are adapted to be engaged and electrically connected with one of the capacitor coatings.

AUGUST 3.

58056. Void.

58057. Alweg-Forschung G.m.b.H. Improvements in supporting structures for mono-rail systems. Supporting structure between track surfaces of the lateral guide wheel made of different breadth to vary control effects on vehicles..

58058. D. L. Griffin. Improvements in or relating to the purification of sewage and industrial effluents. (August 4, 1955.) The liquid to be purified is passed through a blanket of coagulating agents suspended undisturbed in the tank, the blanket being prepared before exposure of the coherent mass to flowing liquid.

58059. J. L. Gratzmuller. Improvements relating to sealing devices. Wherein sealing ring has two sections of different hardness.

58060. Montecatini Societa Generale Per L'Industria Mineraria E Chimica and K. Zeigler. Block polymers of α -olefins and process for preparing same. (August 1, 1956.) Extracting with selective organic solvents from a mixture of block polymers, isotactic polymer and non-isotactic polymer.

58061. The Benjamin Electric Limited. Improvements in electric light fittings. (August 10, 1955.) Reflector has an aperture and a secondary reflector seated over the aperture and resilient means urging it in seated position.

AUGUST 4.

58062. Void.

58063. Montecatini Societa Generale Per L'Industria Mineraria E Chimica. Manufacturing glass fibers. By forming an aqueous composition of an alkali metal silicate and colloidal silica, drawing a filament and simultaneously stretching, synerising and evaporating water therefrom.

58064. The Dorman Sprayer Company Limited. Improvements in or relating to spraying nozzles. (August 5, 1955.) Bore and slot transverse to the feed passage and in the same plane.

58065. May & Baker Limited. Improvements in or relating to pyrazole compounds. (August 15, 1955.) Nitrosating acetylacetone and condensing resultant isonitrosoketone with cyclopentyl hydrazine, cyclohexyl hydrazine or cycloheptyl hydrazine.

58066. Pending.

AUGUST 6.

58067. Void.

58068. Farbenfabriken Bayer Aktiengesellschaft. Process for producing water-insoluble brightening agents. (August 8, 1955.) Reacting water-soluble brightening agents containing acid groups with compounds having a molecular weight of 500-10,000 containing basic groups.

58069. L. Auer. Improvements in or relating to carrier emulsions for use in pigment or dyestuff printing, and printing pastes prepared therefrom. (May 28, 1956.) The emulsion comprises starch, organic liquid and a surface active agent.

58070. The General Electric Company Limited. Improvements in or relating to thermoelectric cooling units. (August 12, 1955.) Has a p-type semiconductor element in association with an n-type semiconductor element and one or more heat conducting surfaces.

58071. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Unitary multiplex separator films for use in primary galvanic dry cells and method for producing same. (April 18, 1956.) The separator comprises an anode film formed from an electrolyte-soluble, non-fibrous cellulose ether, a barrier film, the bonding agent comprising a partially hydrated lower alkyl cellulose ether.

58072. The Wellcome Foundation Limited. Improvements in and relating to diquatary compounds and the manufacture thereof. By reacting a diamine with a quaternising agent.

58073. E. Feifel and R. Prochazka. Improvements in or relating to electrostatic dust collectors. Precipitation plates are disposed in spaced relationship with one another.

58074. Void.

58075. W. Weidner. Improvements in surf power plants. Includes mean for automatically disengaging the coupling means at least when the rising movement of the floating body is substantially completed.

58076. G. D. Searle and Company. 17-alkyl derivatives of 19-nortestosterone and their production. (August 19, 1955.) A 3-oxo-17 α -alkyl-5-(10)-estren-17-ol is isomerised or a 17 α -substituted-19-nortestosterone is hydrogenated or a nuclearly unsaturated derivative of a 17 α -alkyl-19-nor-androstan-17-ol is treated with acid in the presence of a hydroxylic medium.

58077. G. R. Thakre. Improvements in or relating to boxes for safety matches. Providing igniting surface at inside the tray containing match sticks.

58078. Fresconite Limited. Improvements in or relating to laminated sheet materials. A sheet of woven fabric attached by adhesive to the base sheet and melamine or like resin applied on it and cured by heating.

AUGUST 7.

58079. Olin Mathieson Chemical Corporation. Pharmaceutical composition for use as a muscle-relaxant and/or tranquillizing-agent. The composition comprises a solid pharmaceutical carrier and an oxidiazole derivative.

58080. Olin Mathieson Chemical Corporation. 10-(aminoalkyl)-trifluoromethylphenothiazines and their salts. 10-(aminoalkyl)-trifluoromethylphenothiazines are prepared by reacting a phenothiazine with an aminoalkyl halide.

58081. A. H. Hunt (Capacitors) Limited. Improvements in or relating to electrical capacitors. After assembly of dielectric and electrodes, the unit is subjected to drying below relaxation temperature of the dielectric followed by a heat treatment above said temperature.

58082. Knoll Associates, Inc. Improvements in or relating to a chair or the like for supporting the body of a person. Resiliently flexible welded metal wire network.

58083. The Firestone Tire & Rubber Company. Improvements in or relating to wheel construction. Drop center rim having bead seat extending outwardly axially and flat cylindrical surface, a pair of rings and spacer for variable wheel sparing.

58084. Sharp, Jones & Co. Limited and P. R. Deck. Improvements in pipes. Internal layer of concrete and outer layer of synthetic resin bonded material.

58085. Council of Scientific and Industrial Research. A sealing device for containers. Comprising a female coupling attachable to periphery of an opening in a container, a male coupling which can be fitted into central opening in the female coupling and a compressible ring which can be pressed in between the top flange of the female coupling.

58086. The Gopal Glass Works No. 2 and C. Agarwal. Improvements in or relating to the production of Cadmium Sulphide. Producing cadmium nails, dissolving said nails in Conc. nitric acid, adding Conc. sulphuric acid and precipitating cadmium sulphide by adding sodium sulphide.

58087. Accumulatoren-Fabrik Aktiengesellschaft. Improvements in or relating to electrodes for galvanic elements, especially electric accumulators. Comprising spaced conducting vertical rods joined by cross-connections, each rod being surrounded by active material and sheathed by a tube of glass fibres with a diameter less than a hundredth of mm. and having a composition of $\text{SiO}_2=68$ to 72 per cent., $\text{Al}_2\text{O}_3+\text{Fe}_2\text{O}_3=5$ to 3 per cent., $\text{CaO}=9$ to 11 per cent., $\text{Na}_2\text{O}=7$ to 5 per cent. and $\text{K}_2\text{O}=11$ to 9 per cent.

58088. E. Piermari. Improvements in tooth-brush. Characterised in that effective brushing surface formed by free tips of bristles is situated for more than one-third outside the surface joining the end parts of two curved bristle-carrying supports, irrespective of shape of said parts and the shape of brushing surface.

58089. M. Postel. Improvements in or relating to medical and surgical appliances. Box having spring actuated disc for supporting cotton swab opening for removal thereof.

58090. Ciba Limited. Quaternary N-substituted amino-alkyl-trichloroisindolines pharmaceutical preparations containing thereon and process of making same. Treating N-(substituted-aminoalkyl)-trichloroisindoline with quaternizing agent.

58091. Made Cognate to Application No. 55775.

58092. Ciba Limited. Manufacture of new sulphonamides. Reacting 3-sulphanilamido-6-chloropyridazine with methyl mercaptan.

58093. Process Evaluation and Development Corporation. Process for treating fibrous plant material in the manufacture of paper pulp therefrom. Raw material contacted with an alkaline solution to raise pH to above 8.0 and stored in excess of 30 days.

58094. Void.

AUGUST 9.

58095. Void.

58096. Void.

58097. "SHELL" Research Limited. Lubricating greases. (August 10, 1955.) Adding a soap, a nitrite and an ester to hydrocarbon lubricating oil.

58098. N. V. De Bataafsche Petroleum Maatschappij. Production of 1, 2, 3, 4, 7, 7-hexachlorobicyclo (2.2.1) -2,5-heptadiene. Hexachlorobicycloheptadiene is reacted with acetylene under conditions which enables one to obtain an improved yield of the product.

58099. Pending.

58100. Pending.

58101. "SHELL" Research Limited. An improved liquid fuel for internal combustion engines and an anti-knock mixture for use in such a fuel. (August 11, 1955.) A motor fuel, a lead containing anti-knock agent and a boronic or borinic acid.

58102. Pittsburgh Consolidation Coal Company. A method for conveying coal in the form of a water slurry through a pipeline. Conveying coal by use of a water slurry comprising coal comminuted to top size in the range of 28 mesh to 6 mesh, with less than 25 per cent. by weight of the coal comprising 14 mesh particles, the water slurry comprising 35 to 55 per cent. by weight of coal.

58103. Chas. Pfizer & Co. Inc. Process for the preparation of diaminopimelic acid. Growing a mutant of *E. Coli* which requires lysine for its growth and lacks the enzyme diaminopimelic acid decarboxylase under submerged aerobic condition.

58104. United States Steel Corporation. Disc-type balling device. Agglomeration of finely ground low grade ores specially of iron before subsequent treatment.

58105. Colgate-Palmolive Company. Liquid detergent compositions. Comprising 0.1 to 2 parts of water soluble organic synthetic detergent and 1 part of water soluble inorganic polyphosphate salt.

58106. The Wellcome Foundation Limited. Improvements in and relating to derivatives of piperazine and the manufacture thereof. (August 11, 1955.) An alkyl substituted benzydryl derivative is reacted with an alkyl substituted piperazine.

58107. Libbey-Owens-Ford Glass Company. Method and bending mold for bending glass sheets. Heating sheet supported on a mould by radiant heat, but shielding spaced portions thereof lowering onto mold surface at bending temperature.

58108. Libbey-Owens-Ford Glass Company. Method and bending mold for bending glass sheets. Supporting sheet in given plane, heating to soften the edge areas a deflecting and supporting the deflected edges.

58109. Dr. E. Wiesnagrotzki. Improvements in or relating to beltings. Upper layer made of leather, intermediate layer made of insulating material and lower of fabric.

58110. The Colmol Company. Continuous mining machine. Comprising in combination a power driven main frame, mining mechanism including a plurality of spaced rotary cutter and breaker arms rotating on spaced parallel projecting shafts, mechanism connecting the mining mechanism to the main frame for up and down and lateral movement.

58111. M. J. Rymland. Spring cushion unit. Tie wires extending transversely of series of vertical helical spring rows and sheet metal clip rigidly engaging overlapping arcuate portions.

58112. Richard Nilsson Aktiebolag. Method for producing drying oils. Mixing synthetic oil, produced by condensing fatty acid with organic enolic aluminium compound, with natural oil.

58113. Daimler-Benz Aktiengesellschaft. Improvements relating to induction pipes for motor vehicles. (June 27, 1956.) An interference pipe is connected to an induction pipe having the intake orifice at a distance from the engine.

AUGUST 10.

58114. Textool Company Limited. Improvements in or relating to multi-spindle spinning frames or machines. Ring rails oscillate parallel to spindle blades to span with an upward shift at each cycle.

58115. Textool Company Limited. A method of and an apparatus for cotton opening and lap forming. Beaten by a spiked roller, cotton is blown out by air to form laps.

58116. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Method of separating metal halides from a metallic mass. (May 1, 1956.) In which particles of the metallic mass are introduced into

an agitated leaching bath comprising an acidic solution and high melting point reactive metal is recovered therefrom.

58117. A. B. C. Coupler and Engineering Co. Limited. Improvements in or relating to coupling devices for railway and like vehicles. (April 5, 1956.) Coupling hook provided with an actuating member operable from the side of the vehicle.

58118. Ciba Limited. Process for the manufacture of new polymerization products. Reacting polymer with agents yielding hydrazine in such a manner that the final product contains a part of structural elements containing hydrazide groups.

58119. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Process for the manufacture of carotenoids. Dienol ethers of decapentaene or decatetraene are condensed with a C_{14} -acetal and the resulting C_{40} -hexaalkoxy compound is treated with acid to produce C_{40} -6, 13-diketone which is reduced and subjected to dehydration to yield C_{40} -carotenoids.

58120. General Electric Company. Process and apparatus for the continuous manufacture of an elongated body such as wire, sheet, tube, rod and the like. Elongated body of solid material passed through a fluent mass to increase cross sectional area and thereafter accreted body is reshaped to the first cross-sectional configuration.

58121. Alembic Chemical Works Co., Ltd. Closing device for bottles, containers and the like. Closure obtained by surface contact between opening of bottle and the lining of cork, rubber or like resilient material provided on non-resilient cylindrical projection provided internally on the screw cap.

AUGUST 11.

58122. Void.

58123. Standard Telephones and Cables Limited. Coordinate switch. [Addition to No. 56026.] Comprises a panel with passive contacts, pusher members and active conductors.

58124. L. B. Thwaites. Improvements in and relating to tractors. (March 15, 1956.) Means react between front and rear portion of chassis hinged together on a vertical axis.

58125. Acrow (Engineers) Limited. Improvements in mobile batch-weighing machines. (August 19, 1955.) Void after publication. Weight of the load can be transferred from the weighing mechanism to auxiliary supports during movement of the vehicle.

58126. General Electric Company. Continuous casting. Passing simultaneously an elongated body of solid material having the same composition as the molten material with the molten material into the mould and causing the elongated body and the molten material in the mould to form an integral body.

58127. Void.

58128. Void.

58129. Olin Mathieson Chemical Corporation. Composition for the treatment of epilepsy. Comprises a carbamic acid ester of a 1-alkyl-3-ol and a pharmaceutical carrier.

58130. Universal Oil Products Company. Method for effecting catalyzed reactions. Wherein an inert solid heat-retentive material is passed through the catalyst bed between the catalyst particles.

58131. Imperial Chemical Industries Limited. Improvements in or relating to ammonium nitrate and compositions containing it. (September 9, 1955.) Comprises discrete ammonium nitrate particles carrying on their surfaces a deposit of a salt of formaldehyde with monomethylnaphthalene-sulphonic acid.

AUGUST 13.

58132. A. G. Pathak. Alphabet and drawing slate. A rectangular frame is made from a member-L-shaped in cross-section and a roughened glass sheet is kept in position in it.

58133. L. M. Chakradeo, M. L. Chakradeo, P. C. Chakradeo, S. L. Chakradeo, P. L. Chakradeo, V. L. Chakradeo and U. L. Chakradeo. Improvements in the construction of rail-joints for railways, tramways and the like for reducing shocks and sounds. The gap between adjacent rail heads is filled up by welding and the continuous railhead thus formed is cut in a slanting manner.

58134. N. V. De Bataafsche Petroleum Maatschappij. Lubricating grease compositions. Comprising a lubricating oil base and an indanthrene compound having a melting point above 250° F.

58135. N. V. De Bataafsche Petroleum Maatschappij. Process for the staged catalytic cracking of hydrocarbon oils, using finely divided solid catalyst. Characterised in that hydrocarbon products obtained by stripping of partially spent catalyst are to fractionation zone of cracked products from second cracking stage.

58136. Void.

58137. Vereinigte Aluminium-Werke Aktiengesellschaft. Method of producing a durable and very high lustre on articles made of aluminium or aluminium alloys and other metals or metal alloys. Comprising the steps of dry polishing with abrasives then pickling in solution, thereafter finish-polishing the pickled articles with dispersions of polishing agents in liquid media, and finally providing a transparent protective film.

58138. Statham Laboratories, Inc. Improvements in or relating to electrical resistance strain wire transducer. Comprises a movable force summing means and a first, second and third wires.

58139. Societe Des Usines Chimiques Rhone-Poulenc. Improvements in or relating to azaphenthiazine derivatives and their preparation. (June 26, 1956.) An azaphenothiazine derivative is converted by known methods into 10-amino-alkyl substituted derivatives.

58140. Societe Des Usines Chimiques Rhone-Poulenc. Improvements in or relating to phenthiazine derivatives. (June 18, 1956.) [Addition to No. 53678.] Piperazinyl isobutyl phenothiazine is prepared by conventional methods starting from suitable phenothiazines or from a substituted diphenyl sulphide.

58141. Made Cognate to application No. 57086.

58142. Fairbairn Lawson Combe Barbour Limited. Improvements in textile machines having air suction waste removal. (September 7, 1955.) Exhaust air from the broken thread removing device utilised in cooling the spinning frame motor.

58143. British Telecommunications Research Limited. Improvements in and relating to the testing of electrical communications apparatus. (August 16, 1955.) A source of low frequency oscillations connected to a modulator, a set of rectifiers and a differential amplifiers connected to the input and outputs.

58144. The British Drug Houses Limited. Improvements in or relating to the preparation of analgesic agents. (August 23, 1955.) Condensing glycid ether with appropriate amine.

58145. Void.

AUGUST 14.

58146. Libbey-Owens-Ford Glass Company. Method and bending mold for bending glass sheets. Supporting glass sheet on convex shaping surface of mold, heating and exerting force on sheet end to bend it there arts.

58147. Void.

58148. Imperial Chemical Industries Limited. Improvements in arc melting furnaces. Comprising a vessel coaxially disposed within an outer shell with an annular space therebetween which is evacuated or filled with an inert gas.

58149. The Imperial Tobacco Company (Of Great Britain and Ireland) Limited. Improved method of treating tobacco. (August 18, 1955.) Finely

divided treatment material is pneumatically applied onto the process tobacco to be treated.

58150. Simon-Carves Limited. Improvements relating to coal or ore washing plant. (August 23, 1955.) Gravity separation by using liquid media of different specific gravities with single medium recovery system.

58151. Pending.

58152. Ricardo & Co., Engineers (1927) Limited. Internal combustion engines of the compression ignition liquid fuel injection type. (August 22, 1955.) Hot plug having at least one slit extending from the circumferential surface of the plug into the body of the plug.

58153. Commercial Solvents Corporation. Process for the production of mixed ammonium nitrate fertilizers. Mixing soil additive with molten ammonium nitrate.

58154. Compagnie Francaise Des Matieres Colorantes. New optical bleaching agents and process for the preparation thereof. (June 21, 1956.) Condensing a molecule of 4:4'-diaminostilbene with two molecules of cyanuric chloride or bromide.

58155. The British Tabulating Machine Company Limited. Improvements in or relating to electronic calculating apparatus. (August 19, 1955.) Including storage devices, means interconnecting two of them, means for selecting to operate interconnecting means, means for entering divided value in storage devices means for subtracting, means for entering a partial remainder and means for making a single digit entry in a third of the storage devices.

58156. Void.

58157. H. F. Heyman. Waterproofing Agents for Cement or concrete mixture and their method of production. (August 15, 1955.) Void after publication. Comprises a mixture of alkali aluminate, alkali soap, alkali hydroxide and calcium chloride.

58158. Her Majesty's Post Master General. Improvements in or relating to decoding equipment. (August 15, 1955.) Comprises a plurality of code wires and a plurality of control circuits.

58159. Hagenuk, Vormals Neufeldt & Kuhnke G.m.b.H. A method of alumino-thermically welding. Workpiece ends enclosed in the casting moulds are first preheated by flames projected down the riser in the mould from above.

AUGUST 16.

58160. Imperial Chemical Industries Limited. Process for the manufacture of anthracenes. (August 22, 1955.) Heating diarylmethane containing in orthoposition to methane carbon atom methyl or methylene group and also containing a hydrocarbon radical with at least two carbons atoms as substituent in aryl radicals and subsequently removing said hydrocarbon radical.

58161. Imperial Chemical Industries Limited. Improvements in or relating to the manufacture of anthracenes. (August 22, 1955.) Diarylmethanes are heated in absence of oxygen and in presence of at least one of groups IB, II, III, IVA, VA, VIA, VIIA, and VIII of Periodic Table or oxide or sulphide thereof.

58162. United States Steel Corporation. Low-alloy high-strength steel. Comprising .05 to .25 C, .50 to 1.50 Mn, .10 to 1.00 Si, .30 to 1.00 Cr, .15 to .50 Cu, .02 to .10 Vanadium, .01 to .10 acid soluble aluminium in the absence of nickel, cobalt, columbium, tantalum and tungsten.

58163. The British Tabulating Machine Company Limited. Improvements in or relating to electronic calculating equipment. (August 19, 1955.) Having at least two word stores and operating in response to instructions including indication that a word is to be read out of one of said stores and/or including an indication that a word is to be read out of the other or another of said stores, and means responsive to an indication of former type to prevent read out in response to an indication of the latter type.

58164. Farbenfabriken Bayer Aktiengesellschaft. Process of preparing ice-coloures in textile printing. Applying to a textile material a dye composition containing a diazo-amino compound obtained from weakly negatively substituted amines of the benzene series and 2-carboxy-5-nitro-phenylamine acetic acid and an ice colour and developing the dyestuff by steaming with neutral steam.

58165. The General Electric Company Limited. Improvements in or relating to electric light fittings for street lighting purposes. (August 25, 1955.) Including lampholder means with lamps and optical means arranged to concentrate light mainly into four directions each inclined to an axis, which is the downward vertical at an angle between 65° to 85° .

58166. The British Insulated Callender's (Submarine Cables) Limited. Improvements in or relating to the manufacture of electric power cables. (September 30, 1954.) [Addition to No. 53969.] [Divided out of No. 53969, ante-dated to March 5, 1955.] Means comprising a friction grip strand advancing means of the caterpillar type, haul off capstan, paper lapping machines are provided.

58167. Societa Farmaceutici Italia. Process for the synthesis of analogs of steroid hormones substituted in the 2-position. A 4 β , 5-epoxy-3 keto steroid is reacted with dilute sulphuric acid in acetone solution.

58168. Slazengers Limited. Improvements in or relating to the manufacture of fabric-covered play-balls and their covering fabric. (August 17, 1955.) The playing surface is constituted by a random pile.

58169. J. Stell & Sons Limited and E. Marjoram. Improvements in or relating to procedure for winding cops or chases of yarn on to tubular yarn and thread carriers, and to carriers for carrying out the said procedure. (August 16, 1955.) Each appropriate location of the tube being formed therein with a weakening circumferential slit or groove.

58170. Void.

58171. I. G. Parekh, M. C. Patel, A. Kagalwala and C. S. Patel. Improvement in and relating to recessed type fluorescent tube fixture. Bracket housing a pair of spring loaded contact strips, locking stud of cam shape adapted to engage the strips and exposed at its ends from bracket; slot in stud to engage pins of tube; pins engaged with the stud which is then turned so that the strips contact the pins.

58172. E. Haag. Picker for jute looms. (April 18, 1956.) Picker made of a synthetic plastic material having the shuttle striking portion narrower than the spindle guide portion and recesses in the middle area of its side faces.

58173. Walzwerk Neviges, Willy H. Schlieker & Co. Process and apparatus for the production of sheet metal. Continuously welding sheets end on end for passing them through a heat treatment zone and separating them subsequently.

58174. Siemens-Schuckertwerke Aktiengesellschaft. Arrangement for parallel operation of self-regulating compounded synchronous generators. (Addition to No. 54589.) A transformer is introduced in the equalising circuit of the exciter circuit of the exciter arrangements on the alternating current side.

58175. Void.

AUGUST 17.

58176. Olin Mathieson Chemical Corporation. Preservation of non-human animal bones. Removing bone under sterile conditions and placing the same in a container having therein antibiotic agent and blood plasma or serum.

58177. Olin Mathieson Chemical Corporation. A bone mixture comprising pulverised non-human animal bone. Comprising pulverized animal bone that has been cultured in refrigerated state in a bath of antibiotic agent and blood component, and plasma clot as a binder.

58178. The Dow Chemical Company. Improvements in or relating to die head for extrusion of organic thermoplastic film forming materials. An internal

core coaxial with the housing and spaced from it to provide a passageway and a centrally rigid and circumferentially yieldable crown member.

58179. Deutsche Gold-Und Silber-Scheideanstalt vormals Roessler. Process for manufacturing carbamic esters of aminoalkinols. (December 7, 1955.) Treating tertiary aminoalkinols with carbamic acid halides and converting the ester so produced into complex salts with calcium halides.

58180. The Colmol Company. Improvements in continuous mining machine with vertically separable cutter carrying units. Comprising a plurality of rotors journaled in spaced bearings which are mounted on the body to vary the spacing between the rotor axes, and power mechanism mounted on the body.

58181. Void.

58182. Void.

58183. Void.

58184. Ciba Limited. Process for the manufacture of indoles and products obtained thereby. Compounds having an ibogaine-like or tabernanthine-like structure is oxidised to lactam which is then heated with a hydrolysing agent and etherified and reduced.

58185. Void.

58186. Void.

58187. Performed Line Products Co. Hollow body to form dead-end for cables, and the like. Ends of bent helically performed elements grip the core element.

58188. The British Drug Houses Limited. Preparation of Alkoxy-carbamido sulphonamido thiadiazoles. Treating 2-amino-5-mercapto-1:3:4-thiadiazole with alkyl chlorformate in presence of hydrogen chloride abstractor, treating resulting compound with chlorine gas and treating sulphonchloride obtained with liquid ammonia.

AUGUST 18.

58189. The Goodyear Tire and Rubber Company. Improvements in preparation of elastomeric cellular structures. By expanding and curing a reaction mixture comprising an active-hydrogen containing polymeric material, polyisocyanates, water and silicone oil.

58190. Grob & Co. Aktiengesellschaft. Heddle shaft having detachable side supports. Having detachable side supports connected to carrier bars by means of screw bolts passing longitudinally into latter.

58191. The English Electric Company Limited. Improvements in and relating to electric control systems. (August 26, 1955.) Second control means responds to a reference signal and a control signal which vary with first variable quantity.

58192. Pending.

AUGUST 20.

58193. Void.

58194. Aeroquip Corporation. Flexible hose line assembly. Comprising in combination with an end fitting having socket, sleeve, nipple and a lip seal portion of the tube disposed.

58195. Chas. Pfizer & Co. Inc. Antibiotic compositions and preparation thereof. The composition comprises a penicillin antibiotic (10-90 per cent.) and an oleandomycin antibiotic.

58196. Chas. Pfizer & Co. Inc. Pharmaceutical compositions and process for preparing same. Sugar crystals are coated with a gum and then with a therapeutic agent (of 5-200 micron size), the number of coatings being at least 3-15.

58197. Chas. Pfizer & Co. Inc. A process for the preparation of 3-Keto-¹⁴C-steroid compounds. A 3-Keto-¹⁴C-steroid is contacted with oxidising enzyme of an organism of the species *Micromonospora chalybeata*.

58198. National Malleable and Steel Castings Company. A draft gear for use in railway vehicles. Link means received in recesses formed in the sides of followers and encircling abutment means in said recesses for temporarily maintaining cushioning unit in compressed condition.

58199. Dunham-Bush, Inc. Cooling apparatus and the like and refrigeration systems incorporating the same. Gas and liquid contact unit are formed by corrugated sheet.

58200. T. L. Seaborne. An improved diaphragm operated relay pulsator for milking machines. Having two flexible diaphragms coacting with seatings to control the application of vacuum and air admission to the teat cups.

58201. Slazengers Limited. Improvements in or relating to the manufacture of tennis balls. (August 23, 1955.) Crippling the surface fibres of cover material to provide a predetermined tread.

AUGUST 21.

58202. Void.

58203. Council of Scientific and Industrial Research. Improvements in or relating to the preparation of ethyl ester of musk acid, 2-methyltridecane-1:13-dicarboxylic acid. Dehydrating β -hydroxy ester and hydrogenating dehydromusk ester thus obtained.

58204. Dorr-Oliver Incorporated. Centrifuge apparatus and method. By separating the feed material into three fractions wherein the separated intermediate fraction has a specific gravity more closely approximate to that of the underflow fraction than to that of the overflow fraction.

58205. Caterpillar Tractor Co. Two speed scraper apron. Automatically operable means increases the rate of movement of the apron after it rises a short distance.

58206. T. J. Smith & Nephew Limited. W-Phenyl-W-alkylthioalkylamines. (August 23, 1955.) A β -nitrostyrene is reacted with an alkylthiol, the resulting product is reduced and if desired the amino compound is alkylated.

58207. G. Assalini. Purification of sugar juices. By treating sugar juices with an ion-exchange resin in hydroxide form and then with a water soluble metal salt.

58208. The Singer Manufacturing Company. Presser Mechanism for sewing machines. A bushing secured in the head of a sewing machine casing and having a bore and an element mounted for axial sliding movement in said bore.

58209. M. Doi. Apparatus for cooling articles by circulating cooling water through a cooling tank. The arrangement is such that upon cooling water entering the apparatus the water is raised by the pump and water drains from the tank to the well.

58210. Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey. Improvements in or relating to pneumatically operated gate valves. Pressure fluid deforms resilient element only when the gate is in the closure position and prevents operation of the slide means when the resilient element is so deformed.

58211. NSM-Apparatebau G.m.b.H. Gramophone record changing device for consecutively playing records from a stack of records. Record disc holder slidably and releasably engaging the column to move axially along it as records are played and means overlying at least a portion of the uppermost unplayed record disc, whereby the record disc holder maintains constant spatial relationship, and constant and uniform pressure between a record disc being played and tonearm.

58212. The British Thomson-Houston Company Limited. Improvements in and relating to electric lamps. (September 7, 1955.) Comprising glass bulb flattened glass pinch sealed to close the bulb, lead wires brought through the seal, looped and returned to the seal, the loop portions of each lead wire being flattened down on to the pinch.

58213. Mohamed Rafi. Improvement in or relating to locking arrangement of lamps. Comprising rocker assembly held down by spring and having three prongs one of which is attached to a lever which at its lower end keeps, in locked position a lip member protruding out of lamp back casing perpendicular to casing.

58214. Void.

AUGUST 22.

58215. Automatic Telephone & Electric Company Limited. Improvements in connecting arrangements for use in electrical signalling systems. (August 25, 1955.) Comprises a plurality of discharge tubes less in number than the number of distinctive signals.

58216. N. V. De Bataafsche Petroleum Maatschappij. Fuel compositions. Consists of a hydrocarbon base material and a hydrolysed reaction product of a vinyl ester of an aliphatic carboxylic acid.

58217. Hivac Limited. Improvements in or relating to cold-cathode gas-discharge tubes. (August 25, 1955.) Tube-shaped cathode with an annular rim merging smoothly therein; anode rod coaxially disposed away from the cathode and ring like trigger electrode located around the cathode.

58218. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Barrier films for galvanic cells. (April 9, 1956.) Film comprising a methyl cellulose ether having a methoxy content of from 10 per cent. to 20 per cent. by weight, based on dry weight of ether.

58219. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Thermochemical metal removal. (April 18, 1956.) Directing an uniform flat stream of oxidising gas at an acute dihedral angle against a pre-heated surface and a powder nozzle directing associated with each oxidising gas nozzle for directing a flat stream powder-laden gas.

58220. Cement Linings Pty. Limited. Improvements in apparatus for Lining Pipes with Cementitious Material. A dome like nose with spring fingers secured to it and projecting outwardly and rearwardly and a ribbed skirt collar mounted at its rear end with a rigid skirt secured to its collar.

58221. Cement Linings Pty. Limited. Improved pipe cleaner. Discs hold brushes and squeegee and cutters in the front and rear of a supporting member having anchor eyes in each end.

58222. Georgia Tech. Research Institute. Process for simultaneously extracting oil and protein from oleaginous materials. Comminuting grinding in aqueous alkaline solution at pH to dissolve proteins separating oil emulsion, protein solution and solids recovering therefrom.

58223. Sulzer Freres, Societe Anonyme. Device for filtering entrained broken threads, dust and fly from the air stream in a suction system for a textile machine. Hose-like hollow body with porous smooth wall sewing as sole filter disposed in the way of sucked off material.

58224. United States Steel Corporation. Electrochemical method for coating steel surfaces and the product thereof. [Addition to No. 49696.] Solution through which the products are passed consists of watersoluble chromate and a compound containing orthophosphate.

58225. Adamant Engineering Company Limited. Improvements in or relating to power assisted steering mechanism. (August 23, 1955.) A lost motion connection provided between the steering shaft and the steering gear box.

58226. Void.

58227. Hanfwerke-Fussen-Immenstadt Aktiengesellschaft. A process and apparatus for the mechanical knotting of nonmetallic tying or fastening means. Tying packets with strings by means of suitable gripping, guiding, tensioning and cutting means.

58228. Shrimati Raj Rani Kumar. A new type of polish for all white footwear. [Post-dated to June 8, 1957.] Composed of powdered soap stone, calcium carbonate and solution of water and lint Terebinth.

AUGUST 23.

58229. Void.

58230. "SHELL" Research Limited. Process for removing nitrogenous compounds from hydrocarbon oils. (August 25, 1955.) Treating the oil with phosphoric acid in liquid phase.

58231. Klockner-Humboldt-Deutz Aktiengesellschaft. A device for heating fine granular material. (August 2, 1956.) Consists of a number of cyclone type dust separators and a dosing device for the supply of the material.

58232. C. H. Brunt. Improvements in or relating to electric motors. (September 13, 1955.) Comprises a plurality of field windings acting a separate armatures.

58233. Salfret Limited. An improved method and apparatus for cutting or relieving sheet metal by electrolytic etching. Electrolytically etching through a mask constituted by a stencil, intervening between the surface of the work and the electrolyte.

58234. Stahlgruber, Otto Gruber & Co. Repair or connecting member for rubber or rubberised articles. (May 17, 1956.) Comprising a main body of vulcanised rubber with two side by or superimposed layers of unvulcanised rubber with high and low deformation values respectively.

58235. Phillips Petroleum Company. Chlorinated polyethylene and process for production thereof. Polyethylene is chlorinated.

58236. N. Mehta and G. G. Primakoff. Internal combustion engines. Heat of the exhaust gases converts fuel mixture into gaseous state in the restricted passage.

58237. D. P. Ahuja. Process for the burning, roasting and sintering of materials such as raw materials used in the manufacture of cements, e.g., granulated cement raw meal. Waste gases from the burning chamber are sucked through the conveyor carrying the material into a suction chamber below the conveyor and then conducted from bottom upwards into the drying chamber through the belt.

AUGUST 24.

58238. Imperial Chemical Industries Limited. A two phase liquid seal. (August 29, 1955.) Comprising a septum, constituted by downturned edge or skirt of the cover, of the treatment chamber which dips into a body of liquid consisting of two phases.

58239. Coal Industry (Patents) Limited. Improvements relating to the underground gasification of coal. Wherein a reaction zone is initiated at the far end of a bore hole extending through coal seam and is moved towards a shaft through which gasification medium is introduced.

58240. Nederlandse Organisatie Voor Toegepast-Natuurwetenschappelijk Onderzoek Ten Behoeve Van Nijverheid, Handel En Verkeer. Electrodialyzing apparatus. (August 25, 1955.) Cells are constructed as a membrane packets which contain the membranes.

58241. The Plastic and Industrial Corporation Private Limited. Improvements in or relating to link units for making bracelets, belts, armlets and like articles. Comprising a flexible strip of plastic with a button-head at one end and an aperture at the other end to fit therein.

58242. Void.

58243. Council of Scientific and Industrial Research. A process for the separation of sodium sulphate from mixtures of sodium sulphate and sodium chloride. Subjecting a pulp of mixture of sodium sulphate and sodium chloride to a froth flotation operation.

58244. Council of Scientific and Industrial Research. An improved method for the production of titanium tetra-chloride from ilmenite. Reacting ilmenite with hydrogen chloride at elevated temperature to remove the iron and chlorinating the residue in situ.

58245. Void.

58246. Void.

58247. Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey. Improvements in weighing apparatus for loading predetermined quantities of materials into sacks or the like. Automatically actuated obturating device provided to hopper and balance beam having weight holder and sackholder.

58248. Klinger K. G. Process and apparatus for mixing or homogenising powdered material. Introducing compressed air at different pressures through separate annular zones at the bottom of the column of material to be homogenised.

58249. Compagnie Francaise Des Matieres Colorantes. New monoazo dye-stuffs and matelliferous complexes thereof. (July 31, 1956.) Diazotising ortho-aminophenol or anthranilic acid or their derivatives and coupling the diazo derivative with hydroxy thionaphthene or indoxyl or their derivative.

58250. Imperial Chemical Industries Limited. New colouring process. (September 2, 1955.) Applying to the textile material, glutaric acid, a hydrophillic organic substance and one or more dyestuffs containing isothiuronium salt groups.

58251. J. R. Geigy A.-G. Process for the production of derivatives of 3:5-dioxo-pyrazolidine. An alcohol of the formula ROH is reacted with a 1,2-diaryl-3, 5-dioxo-pyrazolidine in the presence of hydrogenation catalysts ($R =$ hydrocarbon radical).

58252. Ortho Pharmaceutical Corporation. Therapeutic compositions. (July 4, 1956.) The composition comprises a quaternary ammonium salt and an organic substance having an $>NSCCI$ radical, in which the nitrogen is linked to an acyl radical.

58253. Lupton Brothers Limited. Improvements in or relating to drilling and slotting fixtures. (September 30, 1955.) Baseplate with locating clamps and guiding means serving as fixture.

AUGUST 27.

58254. Void.

58255. Indian Oxygen Limited, formerly known as The Indian Oxygen and Acetylene Company Private Limited. Apparatus for remotely controlling a prime mover driving a welding generator. (August 30, 1955.) Comprising a solenoid, an electric battery switch means included in a circuit between the battery and the solenoid, switch means being mounted on a welding electrode holder.

58256. The Goodyear Tire & Rubber Company. Improvements in apparatus for stacking tile. Comprises a conveyor, a trough adjacent to but below the discharge end of the conveyor.

58257. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Salts of disubstituted carbamic acid esters and process for the manufacture thereof. Reacting disubstituted carbamic acid ester with quaternizing agent.

58258. British Telecommunications Research Limited. Improvements in and relating to inductance elements. (August 31, 1955.) Comprises a winding embedded in ferromagnetic mass which comprises ferromagnetic powder dispersed in a binder.

58259. Massey-Harris-Ferguson Inc. Improvements relating to a control mechanism for a tractor hydraulic system. An auxiliary valve means adapted to be operated to control the actuator for selectively positioning the hitch linkage.

58260. R. Clemens. An improved structure of aerofoil shape for use in aircraft. Plastic load carrying spar supports metal outer skin, the space in between being filled with a cellular filler.

58261. J. L. Gratzmuller. Self-draining hydraulic energy accumulator. At the end of its operative stroke, the movable partition actuates the means to relieve the fluid pressure.

58262. Bristol Repetition Limited and C. G. Arengo. Improvements in or relating to multi-operation machine tools. Cam shafted disposed below the table.

58263. Rhein-Chemie G.m.b.H. Compositions and process for the manufacture of finely porous materials of rubbers or synthetic resins. Mixing with nitrosoamine and surface active agent and vulcanising.

58264. Shri Dhar. Process for the manufacture of cadmium sulphide and cadmium oxide. (Addition to No. 52652.) Cadmium is oxidised to cadmium oxide by oxidising action of chlorate or perchlorate.

58265. Siemens-Schuckertwerke Aktiengesellschaft. Multicore heavy current electric cables. Conductor concentrically arranged around jointly stranded insulated energy conductors and a common insulating outer sheath, the concentric conductor consisting of metal strips partially overlapping one another.

58266. Chief Engineer, Hirakud Dam Project. A process for manufacturing an air-entraining agent from wood resin for use in cement concrete and mortar. By saponifying wood resin with caustic soda, separating the soap, dissolving it in glycerine and diluting with water.

58267. Void.

58268. M. J. Danawala. Improved tiffin carrier frame. Consisting of a base plate, having a radial depression the sides of which extend to form radial projections and depressions which get into complementary engagement with corresponding ones on the tiffin pot.

AUGUST 28.

58269. Void.

58270. Void.

58271. V. K. Govinda Menon and P. Jayaramdas. Ball or socket-ended screwed rod for attaching direct to ball and socket type disc insulators. [Addition to No. 53373.] End of the screwed rod remote from the screwed end is shaped or formed as a ball or socket adapted to fit into the socket or on to the ball at the other end of insulator.

58272. Pending.

58273. Pending.

58274. The English Electric Company Limited. Improvements in and relating to air-break electric circuit breakers. (September 9, 1955.) Time for each closing operation is same there being greater contact lead during opening operation.

58275. Dunlop Rubber Company Limited. Apparatus for making pneumatic tyres. Former of part spherical winding surface rotated about its own axis and about a second axis, said axis intersecting at the centre of the former.

58276. Abbott Laboratories. Sweetening compositions including tablets and solutions and method of preparing such compositions. Comprising a mixture of salt of cyclamate and 9 per cent. to 50 per cent. of salt of saccharin.

58277. C. C. Wakefield & Company Limited. Improvements in or relating to sight feed lubricators. (August 21, 1956.) Lubricant reservoir separately formed and having a number of hollow shell portions secured together.

58278. Ciba Limited. Process for splitting racemeates. (September 5, 1955.) A d, 1-steroid containing a reducible grouping is subjected to the action of a reducing enzyme produced by a microorganism and one enantiomorphic form is isolated.

58279. Ciba Limited. Process for the production of stable solutions of hardenable condensation products of melamine, thiourea and formaldehyde. A solution of a product having solids content of 40—65 per cent. is heated at a temperature not exceeding 100° C. until a test portion of the resin solution when diluted with water to a solids content of 30—40 per cent. produced a slight turbidity, and the resin solution is adjusted to a pH of 8.5—10.

58280. Void.

58281. Void.

58282. Sylvania Electric products Inc. Method and apparatus for the production of conductive patterns or printed circuit on insulating support. Contacting a deformable raised pattern against a conductive surface and etching the unprotected surface.

AUGUST 30.

58283. N. P. Metal Industries. Improved ferrule and puller assembly for umbrellas. [Post dated to April 22, 1957.] Puller ring consists of a ferrule fitted with a screw adapted to pass through a hole in it and is adapted to control the movement of a catch through a connecting wire.

58284. Olin Mathieson Chemical Corporation. Tissue preservation. Removing tissue from healthy animal body source and maintaining the tissue in a bath with blood component from the same type animal.

58285. Angin Limited. Improvements in or relating to froth flotation. (September 9, 1955.) Void after publication. Reacting alkali with thionating agent and alcohol of formula $R(OR_1)_n(OR_2)_{n_1}H$ or $H(OR_1)_n(OR_2)_{n_1}OH$ where R is alkyl phenol, cyclo-alkyl or alkyl carbonate, R_1 , R_2 , are different alkylene groups= n , n_1 or integers where n_1 may be zero.

58286. Rohm & Hass Company. Preparation of strong self-supporting fibres filaments, yarns and films of thermoplastic copolymers. Passing an aqueous dispersion of a thermoplastic copolymer through an orifice into an acidic coagulating bath and fuse drying the shaped product.

58287. United States Steel Corporation. Improvements in a roll for centering and aligning strip. End rolls having flexible web are mounted on shaft with suitable bearings on sides of centre rim.

58288. The General Electric Company Limited. Improvements in or relating to electric rectifier assemblies. (September 14, 1955.) Cooling fin so arranged that rectifier element mounted on it protrudes through an opening in adjacent cooling fin and electrical connections to electrodes of rectifier elements are made via cooling fins and via terminals mounted on the assembly these terminals being spaced from cooling fins.

58289. The General Electric Company Limited. Improvements in or relating to visual position-indicating arrangements. Including light sources projecting beam of light into working region, the sources being arranged in two distinguishable groups and being spaced apart so as to be separately visible when observer is in the paths of two or more of light beams within working region.

58290. Guest, Keen & Nettlefolds (Midlands) Limited and Acton Bolt Limited. Improvements in rotary thread rolling apparatus. (September 26, 1955.) Pressure pad means provided between the feed wheel and main gap between stationary segment and thread roller.

58291. Laboratory for Electronics Inc. Improvements in or relating to systems for electrically sorting stored items into desired sequence. (May 9, 1956.) Electrical sorting system is provided with one or more level of processing groups comprising indications of the next in sequence.

58292. Diamond Alkali Company. Method of purifying chlorine. Introducing a gaseous mixture of chlorine with inert atmosphere into an absorption zone, and then introducing C_2Cl_4 into the zone.

58293. Heinrich Koppers Gesellschaft Mit Beschränkter Haftung. Improvements relating to fluid pressure-operated rotary actuators. Reciprocating rectilinear movement of piston transmits rotation of drive shaft.

AUGUST 31.

58294. The Indian Oxygen & Acetylene Company Private Limited. Removal of dissolved gas from molten non-ferrous metals and alloys thereof. (October 14, 1955.) Adding to molten metal calcium cyanamide in admixture with an amount of carbon theoretically sufficient to liberate as gas the nitrogen content of the cyanamide.

58295. B. Chatterjee. Burglar alarm. Touching of the safe-guarded object energises a relay to actuate a contacts for operating the alarm.

58296. Reckitt & Colman Limited. A denture cleansing composition in tablet form. Comprising 99-30 per cent. of water soluble cleansing composition and 1-70 per cent. by weight of anhydrous alkali metal or alkaline earth metal or ammonium perborate.

58297. Pilkington Brothers Limited. Improvements in or relating to apparatus for use in bending flat glass. (September 1, 1955). Two shaping elements hinged together and each shaping element is substantially balanced about its fulcrum.

58298. Hagenuk, Vormals Neufeldt & Kunke G.m.b.H. Method of and apparatus for aluminothermically repairing faults in wheel-supporting track members. Defective part cut off and aluminothermically produced steel is cast on the basic material after the latter is enclosed within a mould.

58299. Riedel & Co. Improvements in or relating to baths for the electrolytic deposition of metals. One or more sulphonated quaternary ammonium compound is included in electrolytic bath.

58300. E. G. F. Sandstrom. Device for cutting concentric recesses in wooden workpieces. Tool comprising of outer and inner cutters with converging spiral cutting edges and with inner edges converging and axially disposed respectively.

SEPTEMBER 1.

58301. Void.

58302. Void.

58303. Void.

SEPTEMBER 3.

58304. Void.

58305. Made cognate to application No. 57268.

58306. Sequoia Process Corporation. Improvements in or relating to molding composition, process of preparing same and process of using same. Comprising an irradiation-susceptible resinous plastic material and a bridging agent.

58307. Elemelt Limited. Improvements relating to electric furnaces for glass melting. Having an electrode provided with means for controlling the extraction of heat from the current communicating face towards a cooled part thereof comprising a thermally resistive barrier.

58308. Elemelt Limited. Improvements relating to electrodes for glass melting or refining furnaces. (September 9, 1955.) Comprising an electrode body and a supporting stem having an internal passage for cooling liquid and accommodating a conductor member for conveying current to the electrode body.

58309. Pending.

58310. Elemelt Limited. A new or improved method of and furnace for melting or refining glass. Glass batch materials are fed onto the upper surface.

58311. Dr. Ing. P. Menzen. Improved device for introducing finely divided solids into liquid metal. Solids are passed by gravity from a container to the mixing nozzle, the container being provided with narrow apertures in the lower part of the walls.

58312. Godfrey L. Cabot, Inc. Improvements in recovery of pigments from aerosols. Continuously delivering aerosol to a zone of cyclonic separation and continuously increasing the grain loading of aerosol as it is delivered for cyclonic treatment.

58313. Godfrey L. Cabot, Inc. Improvements in carbon black pellets and a process for their manufacture. Carbon black pellets containing as binder carbohydrate material carbonized in situ in amount equal to between 0.1 and 0.4 of the pellets.

58314. Godfrey L. Cabot, Inc. Improvements in dry battery carbon black and process for its production. Burning non-gaseous aromatic hydrocarbons having H/C ratio of 0.75—1.25 and mean molecular weight of 125—550.

52315. Godfrey L. Cabot, Inc. Improvements in carbon black pellets for ink compounds and process of manufacture. Carbon black pellets containing 2-15 per cent. by weight of non-aqueous, non-polymerizable, non-volatile ink-compatible organic fluid.

58316. Godfrey L. Cabot, Inc. Process of making furnace carbon black and burner therefor. Introducing into furnace vaporized hydrocarbon oil through injector pipe, simultaneously introducing combustible fuel gas from series of points closely surrounding hydro-carbon injector pipe and flowing oxygen containing gas.

58317. Godfrey L. Cabot, Inc. Process for producing carbon black and useful by product gases. Burning hydrocarbon to produce carbon black suspended in combustible by-product gases as an aerosol, shock-cooling aerosol to at least 1,500° F. by indirect heat exchange.

58318. Godfrey L. Cabot, Inc. Improvements in process and apparatus for fractionating solid materials. Flowing stream of gas through and over a cascade of solid materials.

58319. Void.

58320. Knapsack-Griesheim Aktiengesellschaft. Process for carrying out endothermic reactions at high temperatures. (January 6, 1956.) Process wherein at least one molecular gas in the presence of which reaction is carried out, is thermally split into atoms is characterised in that the gas is caused to act outside the heating zone upon the other reactants, the heat liberated by the recombination of the atomic gas being utilised for the endothermic reaction and the mixture being chilled.

58321. A. Reidinger. Improvements in valve mechanism for steam engines. (September 2, 1955.) Means operable automatically allow fluid under pressure into a valve actuation chamber when the regulator is opened to pass fluid under pressure to the engine.

SEPTEMBER 4.

58322. Tecalemit Limited. Improvements in Fluid Meters. (September 16, 1955.) Void after publication. Pairs of free pistons operating in cylinders through which fluid flows and each of them acting as a control valve for the other.

58323. Dunlop Rubber Company Limited. Improvements in or relating to composite moulded articles incorporating textile reinforcing cords. (September 8, 1955.) Incorporating reinforcing cords in layer of natural rubber, having layer of synthetic rubber, thickness being equal to cords diameter.

58324. Monsanto Chemicals Limited. Composition and process for water-proofing porous or fibrous materials, and new catalysts for incorporation in said composition. Composition comprises aqueous emulsion of a silicone resin incorporating an ester of titanitic acid with polyhydric alcohol.

58325. Monsanto Chemicals Limited. Composition and process for water-proofing porous and fibrous materials. Composition comprises an aqueous solution of silicate and an organic compound derived from titanitic acid and an amine.

58326. Amercian Chemical Paint Company. Improvements in or relating to the rinsing of conversion coated metal articles. Subjecting articles to two stages of rinsing with dilute chromic acid and or phosphoric acid solution.

58327. Garringtons Limited. A new or improved method for the production of a blade for use in a fluid pressure operated machine such as a turbine, said blade having one or more cooling or heating passages formed therein. (September 9, 1955.) Blank body is provided with a hole extending through it, the hole then is plugged with a filler material and the blank subjected to precision forging operation.

58328. Newton and Bennett Limited. Improvements in or relating to centrifugal friction clutches. (September 13, 1955.) Clutch springs and centrifugal masses perform alternative function of clutch spring and withdrawal or hold-off springs

58329. C. Deyrail. Prefabricated electrical installation. Comprises flexible metal sheaths in which electric wires slide freely.

58330. S. P. Kinney Engineers, Inc. Improvements in butterfly valves. Of the type having a hollow housing member and a damper member rotatably mounted therein.

58331. Pending.

58332. W. K. Batty. Improvements in or relating to drawing pins. A drawing pin is provided at the top end of its head with a recess or projection for the reception of an additional head.

58333. J. Horiuchi, T. Sato and K. Ishizuka. Method of manufacturing cyanic acid under pressure, using carbon monoxide and ammonia as raw materials. A mixture of carbon monoxide and ammonia gas is passed over an alumina catalyst having 2 to 10 per cent. thorium and a small amount of sulphate ions.

58334. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to methods of producing unsaturated primary alcohols, more particularly those of the vitamin A series. Acid halides e.g. chlorides or bromides, acids or esters of unsaturated aliphatic or mixed aliphatic alicyclic series are reduced by means of a dialkyl aluminium hydride.

58335. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to methods of producing unsaturated primary or secondary alcohols more particularly those of the vitamin A series. Aldehydes or ketones of the unsaturated aliphatic or mixed aliphatic alicyclic series are reduced by means of a dialkyl aluminium hydride or a tri-alkyl aluminium.

58336. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to methods of producing aldehydes by hydrolysis of aldimines obtained by reduction of nitriles. A mixed aliphatic aromatic/alicyclic heterocyclic nitrile is reduced with dialkylaluminium hydride and the complex is hydrolysed.

58337. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to circuit arrangements comprising two circuits, in each of which a choke coil is included. Auxiliary winding magnetically coupled to its own main winding causes additional voltage induced by the first choke winding in the other choke winding to be counteracted.

SEPTEMBER 5.

58338. Mrs. F. Noronha. Improvements in or relating to a pharmaceutical composition. Comprising Tinc. Rhei Co. Tinc. capsici, Tinc. Gingivitis, Tinc. Opeii, spirit camphor and menthol.

58339. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Process and apparatus for welding and cutting metal articles. (January 5, 1956.) Smallest cross-sectional area of the passage is no greater than the cross-sectional area of an equivalent unconfined arc.

58340. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. High density barrier film separators. (April 4, 1956.)

Comprises a smooth surfaced ionically permeable high density super calendered sheet formed from cellulosic fibres.

58341. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Primary galvanic cells. (April 5, 1956.) Film comprises a bibulous alkali-soluble water-insoluble fibrous cellulose ether.

58342. The British Tabulating Machine Company Limited. Improvements in or relating to digital accumulators for use with record controlled machines. (October 5, 1955.) Having two accumulator orders corresponding to two integers, carry means between the orders and entry means for each order operable by values expressed in a second scale of rotation with a lower radix than the first scale of rotation with which accumulator is operable, the entry means for one order also controlling corrective entries into the other order.

58343. J. R. Geigy A.-G. Process for the production of 1,2-diphenyl-4-n-butyl-3,5-dioxo-pyrazolidine. A 1,2-diphenyl-4-butyryl-3,5-dioxo-pyrazolidine is reduced according to Wolff-Kishner to the corresponding 4-n-butyl derivative.

58344. Svenska Aktiebolaget Bromsregulator. Automatic slack adjuster for brakes. Brake rod included in the brake rigging and comprising a first non-rotatable part, a second non-rotatable part and an intermediate rotatable section.

58345. PIRELLI Societa per Azioni. Apparatus for covering uncured rubber tubes with reinforcing threads. Rotor with a plurality of thread bobbins surrounds each spindle and means for guiding the tube to be covered and the threads used for covering.

58346. Schnellpressenfabrik Aktiengesellschaft Heideiberg. Improvements in or relating to cylinder printing machines. With combination of second driving means actuated by first rotation means for rotating impression cylinder, a third driving means actuated by first means and reciprocating typebed and means to synchronize varying speeds of cylinder and typebed.

58347. Veb Fahrzeugelektrik Karl-Marx-Stadt. Magnetoos for internal combustion engines. Employment of ferromagnetic alloys in which the ratio between the inclination of the demagnetisation curve where (BH) is maximum and the permeability is between 1.0 to 1.25.

58348. Dr. Ing. W. Wenzel. Electrical reducing process and furnace for carrying out the process. A mixture of powdered coal and ore is heated under electric current in order that the reaction mixture comes into fluidized state.

58349. Void.

SEPTEMBER 6.

58350. The Buckeye Steel Castings Co. Railway coupler. A lug carried by the coupler head at the top of the aligning pocket, a second lug at the bottom of the pocket and a third lug on a shelf below the knuckle.

58351. Socony Mobil Oil Company, Inc. Exploring unit for acoustical well logging. Comprising acoustic transducers between which is provided acoustical attenuating assembly of flexible elongated member and weights secured to and spacing along this member.

58352. Council of Scientific and Industrial Research. Electrolytic preparation of cuprous oxide from brass. Brass is used as an anode in alkaline sodium chloride solution.

58353. Council of Scientific and Industrial Research. Improvements in a process for the electroplating of metals on aluminium or its alloys. [Addition to No. 51524.] Providing a coating of iron by dipping it in an acidic solution of ferric chloride kept at a temperature range of 25° to 95° C.

SEPTEMBER 7.

58354. H. W. Burrington. Tooth structure for subsoil ripper implement. Tooth tip receiving boot with its socket and retaining pin received aligned bores therethrough.

58355. Taymouth Industries Limited. Improvements in and relating to mechanism for feeding fasteners such as screws, bolts or nails and the like [Divided out of No. 54755; ante-dated to June 16, 1955.] The fastener feeding means includes a shuttle comprising a reciprocatable plate dividing the passage into two parts.

58356. V. R. Altet. Improvements in and relating to pyramidal structural units and structures formed therefrom. (September 8, 1955.) Comprising a rectangular base and a pair of triangular side frames connected at their bases and apices and means at their apices for connecting together a number of units.

58357. James Mackie & Sons Limited. Improvements in and relating to yarn winding machines. (September 8, 1955.) Causing the yarn to pass through a tensioner imposing a frictional drag on the yarn.

58358. K. Abilgaard. Method for the esterification of 2-hydroxy-4-amino-benzoic acid with phenols. (September 8, 1955.) Heating 2-hydroxy-4-amino benzoic acid with phenol in the presence of P_2O_5 or a polyphosphoric acid.

SEPTEMBER 8.

58359. Void.

58360. Western Electric Company, Incorporated. Improvements in semiconductor electric circuit devices for the translation of electrical impulses and circuits employing such devices. (December 1, 1955.) Comprises a semiconductor body having an array of connections possessing asymmetric conduction characteristics

58361. N. V. Koninklijke Pharmaceutische Fabrieken v/h Brocades-Stheeman & Pharmacia. Process for the separation of a therapeutically important fraction from the ester mixture obtained from 3, 5, 5-trimethylcyclohexanol and mandelic acid. The fraction is isolated by distillation from the crude ester mixture.

58362. "LICENCIA" Talalmanyokat Ertekesito Vallalat. Process for the preparation of TROPINE derivatives. Reacting tropeil tropine with 4-diphenyl methyl halide.

58363. Daimler-Benz Aktiengesellschaft. Improvements relating to trailing axle arrangements on vehicles. (July 2, 1956.) Trailing axle suspended from vehicle by leaf springs disposed longitudinally of the vehicle, the axle mounted in bearings to be axially slidable, the bearings being secured to the leaf springs, and leaf springs being displaceable longitudinally but not transversely of the vehicle.

58364. Daimler-Benz Aktiengesellschaft. Improvements relating to change-speed gearing associated with hydrodynamic power transmitting apparatus. (July 13, 1956.) [Addition to No. 56896.] Wherein controllable hydrostatic means are provided which partake in the braking of hydrodynamic power transmission unit and in which part at least of the braking energy can be dissipated.

58365. Rodi & Wienenberger Aktiengesellschaft. Improvements in elastic link strap or bracelets (July 13, 1956.) Consisting of a plurality of substantially rectangular box-shaped link elements.

58366. Rodi & Wienenberger Aktiengesellschaft. Improvements in and relating to elastic straps or bracelets. (July, 16, 1956.) Consisting of a main link elements intermediate connecting elements which are resiliently connected to each other.

58367. Tube Products Limited. Improvements relating to metal tube tapering machines. Providing a stop with a tapered bore on the rear side of the pass between the rolls.

58368. Siemens Edison Swan Limited, formerly known as Siemens Brothers & Co. Limited. Improvements relating to contact spring assemblies. (September 23, 1955) Lever spring of early or late operating contact unit formed with depression at the point of engagement with operating member.

58369. Robain Limited. Improvements in or relating to weighing apparatus. First range spring for small load and second for higher load which works through lost motion device with first range spring.

58370. The Firestone Tire & Rubber Company. Improvements in or relating to wheel construction. Rim provided with bars with notches arranged in a helical path with a pitch equal to the helical edge provided to the disc.

SEPTEMBER 10.

58371. Nigos Corporation. Improved clamping device for hose pipe and the like. Clamp encircling hose pipe and hose gripping plate with ends inserted in holes in locking device and turned over; locking device adapted to travel vertically along a screw inside outer cover abutting against gripping plate.

58372. D. K. Thakur. Improvements in or relating to devices for inserting catamenial devices into vaginal canal. Comprising a tube having absorbent material with a net or linen casing at one end and another tube telescoped into the first tube at the other end and a cap fixed at free end of inner tube for holding cord secured to net or linen casing by a slot on the side of the cap through which cord passes, the slot being so sized that cord is slidably held at the slot.

58373. N. V. De Bataafsche Petroleum Maatschappij. Preparation of 1, 2, 3, 4, 7, 7-hexachlorobicyclo (2.2.1.)-2, 5-heptadiene. By reacting a 5-halo-1, 2, 3, 4, 7, 7-hexachlorobicyclo-(2, 2, 1)-2-heptene with an alkali metal in a liquid reaction medium.

58374. E. K. Cole Limited. Improvements in or relating to tuning arrangements for radio receivers. (September 10, 1955.) Including a plurality of permeability tuning coils, in which tuning is effected by means of a rotatable turret having a plurality of stops.

58375. Simon-Carves Limited. Improvements relating to silica cements. (September 12, 1955.) Silica cement composition includes a surface active agent.

58376. A. E. Staley Manufacturing Company. Improvements in or relating to refining vegetable oils. Treating with water in presence of acid anhydride of lower alkyl aliphatic monobasic and dibasic acids.

58377. Great Lakes Carbon Corporation. Improvements in or relating to process for producing a needlelike coke. Removing from a high boiling petroleum residuum those components which readily form an insoluble phase at 350°—550° C., and coking the remaining residuum in a quiescent pool.

58378. General Aniline & Film Corporation. Improvements in laminated fibrous glass material. Comprising sheets of fibrous glass material bonded together with a copolymer of N-vinyl pyrrolidone and a diallyl ester of dibasic acid.

58379. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to a method of producing vitamin A. pionone is condensed with cyanoacetic acid, the product is decarboxylated and the acetonitrile is converted into an aldimine complex which is hydrolysed to β -ionylidene acetaldehyde, the aldehyde being condensed with acetone and the resulting C₁₁-ketone being subjected to the same steps as before to obtain vitamin A aldehyde which is reduced to obtain vitamin A.

58380. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Manufacture of low molecular unsaturated hydrocarbons. (April 18, 1956.) A hydrocarbon having at least two carbon atoms is pyrolysed with a carrier gas consisting of hot combustion gas having hydrogen.

58381. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process and device for the manufacture of unsaturated hydrocar-

bons from more saturated hydrocarbons by pyrolysis. (May 7, 1956.) Saturated hydrocarbon is introduced into a hot combustion product gas for pyrolysis and the reacted mixture is chilled.

SEPTEMBER 11.

58382. Council of Scientific and Industrial Research. A container closure device. Comprising male and female coupling with flange passing through the lid of container.

58383. Council of Scientific and Industrial Research. A method of isolation of sapogenins. Hydrolysing saponin with aqueous acid.

58384. Council of Scientific and Industrial Research. A process for the recovery of copper from copper pyrites. Dissolving in an aqueous solution of alkali chloride cuprous chloride, acidifying the solution and electrolysing.

58385. Courtaulds Limited. Improvements in and relating to polyacrylonitrile solutions. (September 16, 1955.) Dissolving acrylonitrile together with other copolymerisable compounds, in concentrated solution of inorganic thiocyanate and polymerising the monomer in presence of non-oxidising polymerisation catalyst forming free radicals.

58386. Babcock & Wilcox Limited. Improvements in and an improved method of operating tubulous vapour generating and vapour heating units. Upright vapour generating tubes vapour super-heating tubes in the upper portion of vertically elongated upright walled furnace including row of fuel gas burners.

58387. The Electric Storage Battery Company. Improvements relating to storage battery plates. Mixture of oily substance with powdered lead oxide, water and sulphuric acid reduced to form the negative plate material.

58388. G. K. N. Group Services Limited. An improved weld nut. Weld nut of square form having on one end face an axially projecting spigot for locating the nut over a preformed hole in the plate.

58389. Compania Nacional De Products. Improvements in arc welding processes and electrodes thereof. Of the consumable electrode type.

58390. S. N. Poddar. Improvements in or relating to bobbins. Bobbin disks are secured to the shank by plugs having bores axial with the bore of the shank.

58391. Veb Elektro-Apparate-Werke J. W. Stalin. Number drum for counting mechanism. Number drum characterised by a bipartite development of number drum and a moving hub.

58392. National Research Development Corporation. Improvements in or relating to treatment of milk. (September 19, 1955.) Subjecting to vibrations at ultrasonic frequency.

58393. H. Hansen. Slide fastener. One row in the form of coil while other row in the form of noncoiled serpentine-like structure having loops for engagement between convolutions of coil.

58394. Void.

SEPTEMBER 12.

58395. M. A. Chaudary. An improved method of manufacturing jaggery (gur or gul.) Wherein the clarified sugar cane juice is evaporated by spraying it on a heated surface or is continuously frozen in a chamber and moisture removed therefrom.

58396. Void.

58397. General Aniline & Film Corporation. Improvements in modified polyvinyl halide resin compositions. Comprising polyvinyl halide and polyvinyl pyrrolidone and using said mixture for sizing glass surface.

58398. E. K. Cole Limited. Interference prevention in television receivers. (September 24, 1955.) Gain of the inverter valve is made dependent on the setting of the contrast control.

58399. G. D. Khanna. Improvements in or relating to flushing cisterns. Plug carried by shaft controlling discharge of water from cistern to flushing pipe, the shaft having a bore along its longitudinal axis whereby overflow water from cistern can enter the bore to be discharged into flushing pipe through said bore.

58400. G. W. Seifert. Improvements relating to vehicle brakes. (July 18, 1956.) Force resulting from frictional contact of one brake member with the revolving part of the brake applied to another brake member by transmission means.

58401. Hercules Powder Company Incorporated. Process for polymerising ethylene and the homologues thereof. (April 5, 1956.) Introducing at least one catalyst component into the reaction vessel during polymerisation.

58402. Societe De Prospection Electrique Procèdes Schlumberger. Improved shaped explosive charges. Providing between the explosive charge and cavity substance or mixture of substance which produces exothermic reaction under action of explosion.

SEPTEMBER 13.

58403. Metallgesellschaft Aktiengesellschaft and Suddeutsche Kalkstickstoff-Werke Aktiengesellschaft. Addition agents for the treatment of molten cast iron. Addition agent for treating cast iron comprises 17—50 per cent. magnesium, 2.8—10 per cent. calcium, at least 35 per cent. silicon up to 30 per cent. iron, silicon is sufficient to combine with magnesium, calcium and iron as silicides.

58404. C. T. Electrical Controls Limited. Electric circuit breaker. (January 27, 1955.) [Divided out of No. 55800; ante-dated to November 11, 1955.] Having fixed contact, slidable member carrying contact, spring acting on the member to urge it to contacts-disengaged position, and on part of the member displaced to move into contacts-engaged position and closing means acting on member.

58405. C. T. Electrical Controls Limited. Electric Circuit Breaker. (January 31, 1955.) [Divided out of No. 55864; ante-dated to November 18, 1955.] Consisting of a pair of stationary contacts, a pair of ganged movable contacts mounted for cooperation each with a respective one of the stationary contacts.

SEPTEMBER 14.

58406. Void.

58407. A. J. Panthaky. Asbestos wick for safety stove. Comprising a hollow cylindrical former having an asbestos string wound thereon, and a series of vertical strings constituting the oil carrying medium.

58408. J. L. Luc and Kemper Limited. Improvements relating to ovens. Comprises heating the products externally and then heating it internally by dielectric heating.

58409. A. H. Hunt (Capacitors) Limited. Improvements in or relating to electrical capacitors. (September 15, 1955.) Dielectric is deposited as a coating on a strip of flexible backing material.

58410. A. H. Hunt (Capacitors) Limited. Improvements in or relating to electrical capacitors. (September 15, 1955.) Capacitor dielectric is applied as a coating over the metallised surface of the backing strip.

58411. A. H. Hunt (Capacitors) Limited. Improvements in or relating to electrical capacitors. (September 15, 1955.) Plurality of layers of metallisation are deposited successively on the surface of the strip.

58412. D. M. Morgenstern. Vacuum die casting method and means. Comprising in combination die members that are relatively movable and from each other and by and between which a die cavity is defined, mechanism for effecting relative movement of die members toward and from each other to open and close die cavity.

58413. Societe Des Usines Chimiques Rhone-Poulenc. New phenothiazine derivatives and process for their preparation. Converting a phenothiazine compound into a phenothiazine derivative so as to substitute in the 10-position an alkyl substituent.

58414. Imperial Chemical Industries Limited. Preservation of natural and synthetic rubbers and rubber articles. (September 21, 1955.) [Addition to No. 54610.] Incorporating in the rubber an antioxidant of the general formula 2 and 3—substituted 4-alkoxyphenols.

58415. Imperial Chemical Industries Limited. Manufacture of new guanidine compounds. A compound of the formula $A-N(R)-C(=NB)-SX$ and a compound of the formula $R'-NH-N(R'')R'''$ are inter-acted (A and B stand for substituted or unsubstituted hydrocarbon radical R, R', R'' and R''' stand for hydrogen or alkyl radical; X stands for an alkyl or aralkyl radical).

58416. Void.

58417. Standard Telephones and Cables Limited. Radio diversity receiving system. Comprises means responsive to the output of the signal source to produce a control voltage.

58418. Standard Telephones and Cables Limited. Improvements in or relating to automatic telecommunication exchange equipment. (February 9, 1956.) Incoming talking wires terminate at a transformer and a single relay serving both the calling relay and ring-trip relay is connected to the centre.

58419. Pending.

58420. Pending.

58421. Pending.

58422. George Fletcher and Company Limited and C. W. Murray. Improvements in and relating to means for feeding liquids into the concentrating vessels. (September 28, 1955.) A second liquid circuit is provided in the concentrating vessel.

SEPTEMBER 15.

58423. Power Jets (Research & Development) Limited. Aircraft flying control systems. (September 28, 1955.) Lift control means for varying the lift produced by the wings extending along their trailing edges and means to vary the lift on the two wings either in the same sense or differentially.

58424. Power Jets (Research & Development) Limited. Jet propelled aircraft. (September 28, 1955.) Exhaust gases stream rearwardly as a long thin jet sheet extending the span of the wing and a deflector, deflecting the jet sheet downwardly.

SEPTEMBER 17.

58425. H. Ghosh. Improved mechanical means for attachment to ring frame to vary speed of ring frame in building cop as well as in each traverse of ring rail. Comprising a belt shifter placed on driving cone drums moving forward and backward to increase and decrease the speed of ring frame through the medium of a lead screw.

58426. Leca (World) Ltd. Process for manufacturing a product suited for insulation purposes in the form of small pebbles of vesicular structure. Burning clay is rotary clay with individually rotating compartments, one being slower than the other.

58427. Dobeckmun Britain Limited. Improvements in and relating to threads for fabric manufacture. Printing a web of thermoplastic material across parallel lines extending along the said web and severing said printed web along said parallel lines to form a plurality of threads.

58428. The Singer Manufacturing Company. Hand-attachment support for sewing machines. Comprising a horizontal reach member, an apertured first leg member and an apertured second member.

58429. Hercules Powder Company Incorporated. Process for the manufacture of polyolefins. (April 6, 1956.) Treating polyethylene produced by low pressure polymerisation process with alkaline material.

58430. The Upjohn Company. Process for preparing a new antibiotic, and antibacterial compositions containing the same. By cultivating *Streptomyces* sp. 101, in an aqueous nutrient medium under aerobic conditions.

58431. Petrix-Union G.m.b.H. Dry cell battery. Leclanche cell in which depolarization mass is completely surrounded by zinc electrode and separated from this electrode by electrolyte carrier interposed between them and a conductor comprising an electron conducting film.

58432. Ab Tudor. Accumulator plate. Comprising pencils of active material mounted on metallic spines, each of the pencils being enclosed in a tube of electrolyte resistant insulating material which is permeable to the electrolyte, the covering having an oval cross-section and being so disposed that the largest diameter of the oval cross-section is parallel to the plane of the plate.

58433. Diffusion Alloys Limited. Improvements in or relating to rotary furnaces. A removable retort is engaged axially in a rotary retort.

58434. Void.

SEPTEMBER 18.

58435. Void.

58436. Void.

58437. Dr. K. I. Venkataramanan. Improvements in or relating to preparation of a processed carbon for use in cleansing drinking water and particularly for removing excess fluorides. Husk is carbonised and the carbon so obtained is boiled with caustic soda solution, washed with water and soaked in aluminium sulphate solution.

58438. Standard Telephones and Cables Limited. Process for lining metallic tubes with insulating material. (February 9, 1956.) Comprises dissolving insulating material in a solvent letting it enter the tube and then draining most of the solution.

58439. Standard Telephones and Cables Limited. Improvements in or relating to static electric switches. (September 30, 1955.) One set of circuits is divided into groups and each set is connected to a corresponding switch of one stage.

58440. Void.

58411. Hercules Powder Company. Process of polymerization of ethylene and improved catalyst for use therein. Contacting with catalyst formed by mixing bis (cyclopentadienyl) titanium, zirconium or vanadium salts with alkyl metallic compound of metal from groups I-A, II-A; II-B or III-A of Periodic Table.

58442. Imperial Chemical Industries Limited. Process for the manufacture of foamed phenol-formaldehyde condensates. (September 26, 1955.) Mixing a liquid phenol formaldehyde condensate with sulphonhydrazide and a catalyst.

58443. The English Electric Company Limited. Improvements relating to control apparatus for textile ring spinning and the like frame drives. (September 27, 1955.) The changeover from the lower to the higher speed is initiated by a relay through a circuit including variable resistor means.

58444. British Timken Limited. Improvements relating to the manufacture of race members of roller and ball bearings. (October 15, 1955.) Mechanical pre-stressing of race members prior to finish grinding.

58445. Lodge-Cottrell Limited. Automatic voltage control of electrostatic precipitator. Comprising relay to lower voltage until transient and flash over currents cease, a time relay raising voltage at predetermined times and a relay operating to reclose circuit breaker after an overload trip to lock the circuit breaker open after predetermined number of reclosures in predetermined time.

SEPTEMBER 19.

58446. N. B. Das Gupta. Mechanical fan. Revolution of blades effected by one or more pairs of gears.

58447. Automatic Telephone and Electric Company Limited. Improvements in telephone systems. (September 22, 1955.) Having facilities for setting up connections from a manual board at one exchange to subscribers at an automatic exchange, in which the incoming junction relay sets at the automatic exchange have associated therewith discriminating devices.

58448. The General Electric Company Limited. Improvements in or relating to audio frequency transistor amplifiers. (September 28, 1955.) A pair of similar transistors arranged to operate substantially as a class B push-pull amplifier.

58449. Olin Mathieson Chemical Corporation. Production of Tetracycline. Growing mutant streptomyces sp. 3721 or 3722 in fermentation medium.

58450. The Firestone Tire & Rubber Company. Improvements in rim for wheel tires. Rim provided with at least one cylindrical ledge portion between a drop center well and the bead engaging portion.

58451. Rohm and Haas Company. Coating compositions. The composition comprises an aqueous dispersion of (1) an ammonium or volatile amine salt of a co-polymer of maleic anhydride and a branched chain olefin (4-10 carbon atoms) (2) a water insoluble ethylene oxide condensate of a higher alkyl phenol, and (3) if desired an ammonium or volatile amine salt of a copolymer of acrylic, methacrylic and itaconic acid with an ester of such acid.

58452. The Dow Chemical Company. Improvements in or relating to method of making latent foaming thermoplastic resin compositions. Contacting resin with 10 per cent. by weight of dichloro difluoromethane at 70-125° C. under pressure to 4 per cent. of resin, cooling to 40° C. releasing pressure.

58453. Trading Company Lte Hegt & Co. Ltd. Improvements in or relating to loom pickers. The bushes of synthetic material are filled within the bores in the head of the picker through which the shaft passes.

58454. The Western States Machine Company. Horizontally operating loading gate for centrifugal machines. A drip catching pan disposed beneath the gate closure fitting end face of hollow gate body and operating means for moving closure.

58455. The Western States Machine Company. Control system for centrifugal machines installation. Comprising a plurality of actuator to activate recycling means, timing means and means for starting timing means at predetermined timed sequence.

58456. P. N. Kharadi. Improved safety match box. Within the tray are formed one or more match stick holders open at their outer ends in one of the exposed side walls of the tray.

58457. The Western States Machine Company. Loading gate assemblies. Inflatable means having connection with source of pressure located between closure member and cross head, cross head for moving closure member.

58458. Acrow (Engineers) Limited. Improvements in and relating to formwork and to clips for "formwork Panels". (September 20, 1955.) Comprising a bolt, a sliding member on the shank and a head passing through a pair of aligned slots in the flanges of panels.

58459. Made Cognate to Application Nos. 57690 and 60083.

58460. Made Cognate to Application No. 57540.

58461. Schlumberger Well Surveying Corporation. Improved earth formation fluid sampler. Comprising a support with a sample surveying conduit a gun bore, a penetrating projectile within the gun bore and an impelling means.

58462. Schering A. G. Manufacture of tasteless preparations of basic antihistaminics. Treating tannic acid with antihistamine in stoichiometric proportions.

58463. J. G. Talati. Improved plate bending machine. Bearing for the free roller is adapted to travel vertically within a pivotally mounted frame, by a screw means.

SEPTEMBER 20.

58464. Void.

58465. D. Ghose. Single Cast Flange Unit for Tubewell Pumps. Comprising a flange, a central boss extending upwardly and a second boss extending downwardly from it, both the bosses being coaxial and internally threaded and bore of the upper boss being of lesser diameter than the bore of the lower boss.

58466. Esso Research and Engineering Company. Catalyst and process for preparing and using the same. A nonpolar organic solvent solution of a hydrocarbon soluble compound of an amphoteric metal is irradiated in the absence of oxygen to sensitise at least portion of the amphoteric heavy metal of the compound.

58467. The Plastic and Industrial Corporation Private Limited. Improvements in or relating to fitting rain coats or like garments made of thermoplastic materials with buttons. Fixing thermoplastic buttons by heat sealing.

58468. Void.

58469. Rauma-Repola Oy. Improvements in and relating to slurry inlet means in a strainer apparatus. [Addition to No. 54623.] Characterized by a distributing duct disposed above the strainer surface and forming a continuous annular inlet to feed the slurry.

58470. Rauma-Repola Oy. Improvements in and relating to slurry inlet means in a strainer apparatus. [Addition to No. 54623.] Wherein the distributing duct extends below the top level of the strainer surface and has a bottom discharge for heavy particles.

SEPTEMBER 21.

58471. E. K. Cole Limited. Turret turners. (September 27, 1955.) Incorporating a fine tuning variable condenser whose plates are fixed and are constituted by members fixed to appropriate turret switch contacts.

58472. International Combustion (Holdings) Limited. Improvements in or relating to elevator-conveyors. (September 22, 1955.) Inner arm of jib carrying continuous driving chain provided with a trough and outer arm constitute bucket elevator.

58473. Alice-M. Deprez. Method of producing a copal for technical purposes. Comminuted copal is suspended in water, the suspension is heated, an acid phosphate is added, then a metal acetate is added, the mixture is filtered, residue is dissolved in an organic solvent, the solvent is removed and the foamy residue is heated until the foam disintegrates.

58474. R. Rummel. Gasification of fuels and decomposition of gases. (August 13, 1956.) By reacting fuel with at least one constituent of slag, which is reused on regeneration.

58475. Ciba Limited. Process for the Manufacture of New Polyglycol Ether Derivatives and use of such Derivatives for treating fibres. Introducing polyglycol ether chain into primary monoamine containing aliphatic hydrocarbon radical having at least 20 carbon atoms, so as to yield reaction product which contains at least 10-CH₂-CH₂-O groups.

SEPTEMBER 22.

58476. Creed & Company Limited. Start-stop teleprinters. Comprising means for locally producing auxiliary start and stop signals whose periods are shorter than and lie within periods of received normal start and stop signals, respectively, and means for applying the auxiliary signals for controlling the teleprinter, each auxiliary signal being ineffective unless normal signal is missing or delayed.

58477. Imperial Chemical Industries Limited. Process for the manufacture of chromium and cobalt complexes of O:O' dihydroxymonoazo compounds. (September 30, 1955.) Treating naphthalene-2-diazo-1-oxide having sulphonamide group at 5-, 6- or 7-position of naphthalene residue with 5-chloro naphthal, the monoazo compound thus obtained being treated with chromium or Cobalt compound.

58478. Simon-Carves Limited. Improved means for controlling the operation of plant for the grading or separation of raw materials. (September 24, 1955.) A beam of gamma rays is employed to examine the cleaned product and/or the separate dirt.

58479. The Britannia Engineering Company Limited and L. Maxwell-Holroyd. Machine for use in the cultivation including harvesting of tea and like bush-grown commodities or other agricultural products. Leaf cropping implement comprises co-operating leaf selecting and leaf severing means, the selecting means causing immature leaf to be bend underneath the advancing severing means.

58480. Karamchand Premchand (Private) Limited. Process for the preparation of the methyl ester of dithiosalicylic acid. Esterifying dithiasalicylic acid with methyl alcohol under conditions which force the reaction equilibrium towards the positive direction.

58481. Smith Kline & French Laboratories. Method of preparing 10-(aminoalkyl)-trifluoro-methyl phenothiazine derivatives and the products of the method. Condensing trifluoromethyl phenothiazine with a reactive amino alkyl ester or a salt thereof.

58481. Smith Kline & French Laboratories. Method of preparing 10-(aminoalkyl)-trifluoro-methyl phenothiazine derivatives and the products of the method. Reducing a cyanoalkyltrifluoromethyl phenothiazine derivative.

58483. Smith Kline & French Laboratories. Method of preparing 10-(aminoalkyl)-trifluoro-methyl phenothiazine derivatives and the products of the method. Condensing a trifluoromethyl phenothiazine derivative with an amine.

SEPTEMBER 24.

58484. N. V. De Bataafsche Petroleum Maatschappij. Lubricating oil compositions. Comprising a major amount of a lubricating oil and a minor amount of an oil soluble polymeric compound and an oil soluble basic metal salt of organic sulphonic acid.

58485. N. V. De Bataafsche Petroleum Maatschappij. Lubricating oil compositions. Comprising a major amount of lubricating oil and minor amount of an oil soluble polymeric compound and oil soluble phosphorous compound containing at least one P-C linkage.

58486. N. V. De Bataafsche Petroleum Maatschappij. Lubricating oil compositions. Comprising a major amount of a lubricating oil and a minor amount of an oil soluble polymeric compound and oil soluble metal salt of a carbocyclic carboxylic acid.

58487. Power Jets (Research & Development) Limited. Jet propulsion plant. (October 5, 1955.) Main duct with a forward air intake has a dynamic compressor and an independent source of high velocity gas connected to the discharge.

58488. Chas. Pfizer & Co. Inc. Antibiotic compositions. Comprises an antibiotic containing powder which when dissolved in milk exhibits a pH of at least 4.

58489. Radio Corporation of America. A circuit for demodulating a frequency modulated wave. Circuit component values chosen such that at low signal levels the frequency of input signal governs the frequency of oscillator and the output comes from oscillator to the output electrode while at high signal levels the input overrides self-oscillation and the output comes from input to output electrode.

58490. Indhar AB. Improvements in concrete sleepers. Concrete bodies joined to one another by a metal tube extending in a longitudinal direction of the concrete bodies.

58491. V. R. Sonti. Improvements in or relating to bogies for conveying timber or like articles to pressure cylinders or like receptacles for treatment with preservative compositions. Bogies with trolley part carrying an easily separable tray part having a bottom curvature conforming to pressure cylinder

58492. Algemene Kunstzijde Unie N.V. Process and apparatus for continuous manufacturing of artificial threads according to the wet-spinning method. The threads are led through each strengthening bath with the aid of a positively driven roller partly immersed in the liquid and having a diameter of at least 40 cm.

58493. Fiat Societa Per Azioni. Machine for winding conductors on rotary armatures of electric machines. Comprising supporting head for armature, a shaft having secured to one end said head, means for feeding conductors, wire-guides for the winding conductors and means for relatively displacing the wire-guides and armature supporting head.

58494. Veb. Maschinenfabrik Polysius. A process of and device for cooling burnt cement clinker or the like material. Material is uniformly pushed towards the centre of a cooler.

SEPTEMBER 26.

58495. Void.

58496. V. K. G. Menon, and V. K. U. Menon. Forming screw threads by the process of forging. Placing the rods on which screw threads are to be formed in between dies and pressing the latter against each other against the rods, characterised in that the rods are provided with two or more longitudinal grooves.

58497. Automatic Telephone & Electric Company Limited, and British Telecommunications Research Limited. Improvements in telephone systems. (September 22, 1955.) Register senders of the code translating type is made accessible from outlets of the first code selectors.

58498. Etablissements Carel Fouche and Cie and J. E. P. Verneaux. Improvements in or relating to antisway devices for railway vehicles. Device connects pair of wheels for keeping direction of wheel axis at right angle to track axis and a device for centering that portion of the axis which comprised between the wheels centrally of the track.

58499. A. Buttica, C. Tesage and H. Dembowski. Method and apparatus for controlling a flow of fibrous materials. The flow of fibres to be controlled is passed between two metallic plates forming a measuring condenser.

58500. Luwa A. G. A device for air-conditioning rooms. Consisting of a filter, a heat exchanger, a mixing chamber and a fan.

58501. Chas. Pfizer & Co. Inc. Therapeutic compositions and process for preparation thereof. Comprising vitamin B₁₂, ascorbic acid and iron in aqueous vehicle of polyol with at least 5 carbon atoms and anhydro derivative thereof.

58502. The Goodyear Tire and Rubber Company. Improvements in apparatus and methods for actuating friction elements of a brake or the like. Fluid pass through self-acting cut off valve to actuating cylinder having means for planned decay of pressure within.

58503. Void.

SEPTEMBER 27.

58504. Void.

58505. Void.

58506. S. L. Mukherjee and Albert David Ltd. Manufacture of sulphonyl urea derivatives. Reacting p-acetamino benzene sulphonyl urethane with n-butylamine.

58507. J. R. Geigy A.-G. Fungicidal composition. [Divided out of No. 54490; ante-dated to May 16, 1955.] Comprising compounds obtained by reacting trichloromethane sulphenyl chloride (perchloromethyl mercaptan) with sulphonyl hydrazone with diluent or carrier therefor.

58508. Power Jets (Research & Development) Limited. Improvements in or relating to jet propulsion engines. (October 5, 1955.) Means for increasing the pressure of air from inlet to combustion chamber can be rendered ineffectual.

58509. The Monotype Corporation Limited. Variable step-by-step feed mechanism for photo-type composing machines. Including slide members, feed racks, selector means associated with each slide member, pinions one driven by each feed rack, the movements of pinions combined by differential mechanisms, applied to output shaft coupled to feed mechanism which is moved step by step to position projected images on sensitized sheet.

58510. Void.

58511. Westinghouse Brake & Signal Company Limited. Driver's brake control device for electro-pneumatically controlled fluid pressure braking apparatus. (October 7, 1955.) Cams mounted on control spindle actuate valves to control communication to conduits.

58512. American Cyanamid Company. New steroid compounds and the preparation thereof. A diester of Δ^4 -pregnene-16 α , 17 α , 21-triol-3, 20-dione-9 β , 11 β -oxide is reacted with a hydrogenhalide and if desired the product is saponified.

58513. The Colmol Company. Self-contained mobile power driven conveyor system. These are provided interconnected complementary universal joint members rigidly mounted on ends of adjacent conveyor supporting units.

58514. The Colmol Company. Continuous automatic flexible conveyor. Includes a receiving unit, a discharge unit, steering means and pivoted bar means.

58515. Oldham & Son Limited. Improvements in or relating to illumination in mines. (September 28, 1955.) Including a table element slotted at intervals near to its periphery and providing an abutment in relation to each slot, the abutment being disposed to co-operate with the slot in holding a miner's cap lamp.

58516. Void.

58517. Void.

SEPTEMBER 28.

58518. Ronson Corporation. Power driven shaver. Main cutter of the close shaving type and auxiliary section providing a coarse cut with means for connecting or disconnecting movable cutter from actuating member.

58519. J. W. Richter. Parenteral solution equipment and method of adding a supplemental medicine to a parenteral solution. A parenteral solution container having its mouth closed by a resilient stopper and establishing connection by a conduit means to a dispensing container.

58520. Grob & Co. Aktiengesellschaft. Heddle shafts for looms with fixedly mounted rails. A shaft having fixedly attached rails for filing healds wherein the ends of said rails are resiliently bendable away from the shaft and having latches.

58521. Pending.

58522. Libbey-Owens-Ford Glass Company. Method and apparatus for bending glass sheets. Comprising supporting the glass sheet on a mold, heating it, rotating one end of the sheet at an angle to the plane of initial support and depositing it on the mold shaping surface.

58523. James Mackie & Sons Limited. Improvements in stop mechanisms for textile machines. (September 29, 1955.) (Addition to No. 49485.) A pivoted detector is employed and repeated engagement is brought about between the detector and the yarn, the detector normally moving out of contact with an abutment but makes a contact to stop when the yarn breaks.

58524. Void.

58525. Preformed Line Products Company. A suspension system for linear bodies, such as electrical transmission lines, cables and the like. Protuberating means provides two bulges along the length of the cable to which helically preformed rods are applied held by half bearing shoes of complementary construction.

58526. M. Takeda. Edge position controlling device for sheet materials. Micro-switch feeler system detects edge shifting and actuates jet pipe of the regulator.

SEPTEMBER 29.

58527. Void.

58528. Council of Scientific and Industrial Research. Manufacture of light basic magnesium carbonate. Adding Sambhar Lake bittern to sea bittern and stirring the mixture to precipitate basic magnesium carbonate.

58529. Council of Scientific and Industrial Research. An improved process for the preparation of β -ionone. Pseudo-ionone is cyclised with concentrated sulphuric acid and glacial acetic acid and the reaction mass is kept below 15° C. until β -ionone is removed.

58530. Void.

58531. Void.

58532. James Mackie & Sons Limited. Improvements in and relating to cop winders. (October 19, 1955.) Cop is loaded by an axially movable buttress which is moved out of the way of the cop transversely to the axis of the spindle to allow a finished cop to be doffed.

58533. United Kingdom Atomic Energy Authority. Improvements in or relating to grab mechanisms. Two co-axial sleeves together forming latching means for grappling under control of electrically operated rotor movement.

OCTOBER 1.

58534. Miss S. Cousins. Brassiere and clasp therefor. Comprises a pair of breast supporting cups provided with reinforcing elements along the inner peripheral edges thereof, and a clasp consisting of coupling members, each member being integral with its respective reinforcing element.

58535. Dunlop Rubber Company Limited. Improvements in or relating to products containing textile yarns and polyvinyl compositions. (October 4, 1955.) [Addition to No. 54532.] Comprising corespun yarn containing 50 to 90 per cent. continuous filamentary material, embedded in polyvinyl plastic composition.

58536. Heberlein & Co., Ag. Improvements in or relating to crimped yarns. Imparting a high twist to artificial yarns in one direction, detwisting the same, imparting a hightwist again but in the opposite direction and then detwisting again.

58537. Leo Industrie Chimiche Farmaceutiche. New penicillin compounds and intermediates for use in their production. A solution or dispersion of a penicillin salt is treated with a solution or dispersion of a sulphonamide.

58538. H. Ingold. Arrangement for the shifting of containers and platforms. Conveyor chain carrying coupling members and by clamping arrangement, container is yieldably coupled with chain.

OCTOBER 4.

58539. Standard Telephones and Cables Limited. Loading coil assembly. (October 5, 1955.) Plurality of loading coils enclosed in a tube of insulating material and connected to the appropriate conductors.

58540. Void.

58541. Ciba Limited. Manufacture of aryl-quinuclidines. 3-Quinuclidone is reacted with a phenyl metal. The product, if desired, treated with an agent capable of splitting off water, and further if desired hydrogenated.

58542. Void.

58543. A. Schreiber. Process and apparatus for improving the combined mechanical and biological clarification of town sewage or the like. Activated sludge from biological purification and fine sludge from mechanical purification are conveyed through preceding purification tanks to a sludge storage device.

58544. T. C. R. Shepherd. Improvements in or relating to comminuting apparatus. (October 7, 1955.) Shaft driven comminuting rotor with a seal round it having supply of water under pressure.

58545. T. C. R. Shepherd. Improvements in or relating to comminuting apparatus. (October 7, 1955.) Rotor rotatable within ring of teeth and stream of water directed radially outwardly from the rotor.

58546. T. C. R. Shepherd. Improvements in or relating to comminuting apparatus. (October 7, 1955.) Rotor rotatable within the ring of teeth and water directed above the rotor to act with material.

58547. J. R. Geigy A.-G. Pesticidal composition. [Divided out of No. 54491; ante-dated to May 16, 1955.] Comprising S-arylmercaptomethyl-0-0-dialkyl esters of dithiophosphoric acid and diluent or carrier therefor.

58548. W. Price. Improvements in or relating to electric water heaters. Water flows in succession through a primary path of heat exchanger, heating element, secondary path of heat exchanger and outlet.

58549. Automatic Telephone & Electric Company Limited. Improvements in alternating current signal receiver. (October 1, 1955.) In which incoming signals are applied to an amplifier operative over a frequency band greater than and including a particular frequency band and output of amplifier applied to discriminating circuit responsive to signals exceeding a prescribed amplitude whereby width of said band is defined.

58550. Automatic Telephone & Electric Company Limited. Improvements in automatic telephone exchanges. (October 29, 1955.) On an originating connection from any line in a group, associated marking circuit completes circuits for magnets of crossbar switching arrangement comprising one primary and one secondary crossbar switch to which one group of lines alone is connected primary and secondary crossbar switches being connected by links and operation of crossbar switching arrangement extending falling line over a pre-allotted link to preallotted transmission relay set accessible to each switching arrangement.

58551. Void.

58552. Void.

58553. Council of Scientific and Industrial Research. Improvements in or relating to mullite refractories from kyanite. Producing mullite refractories by mullitisation of a mullite forming constituent characterised in that the mullite forming constituent consists partly or wholly of uncalcined kyanite.

58554. Council of Scientific and Industrial Research. Process for reducing hygroscopicity and caking of ammonium nitrate fertiliser. Ammonium nitrate granules are coated with bone powder or river silt.

58555. A. R. Narayana Rao. Improved arcing horn used in High voltage gang operated air break switches. Horn of female contact is pivotally mounted carrying a spring loaded arm.

58556. J. D. Hedges. Formed carbon article and process of making same. Subjecting to high pressure carbonaceous material containing volatile combustible matter within mold and electrically heating to generate heat within the said materials.

58557. Void.

58558. A. N. Rajan. Improvements in or relating to fuses. Fuse wire held within glass tube, with its two ends soldered respectively to two nickeled brass caps fitted at the two ends of the glass tube by a binding agent comprising a cement of Ethoxylene resin.

58559. Void.

OCTOBER 5.

58560. Reynolds Metals Company. Method of expanding bonded metal sheets and composite sheets produced by such method. Pressing the so-formed composite structure between the surfaces one at least of which is yieldable, introducing fluid under pressure to the unbonded area to stretch-expand the sheet to form a conduit.

58561. Reynolds Metals Company. Method and apparatus for expanding pressure welded passageway panels, and panels made thereby. Introducing a measured volume of liquid into the panel to expand the passageway internally to a corresponding volume.

58562. A. Martin. Improvements in distance detecting devices. Combination of optical means and differential photo-sensitive means in the image plane of optical means, giving electric signal in response to instantaneous sharp difference of illumination between two adjoining zones of imageplane, but being non-responsive to gradual differences of illumination existing between adjoining zones of blurred images.

58563. The Dow Chemical Company. Improvements in or relating to halogenated polyolefins. Reacting a polyethylene with a halogen in an agitated condition.

58564. The Singer Manufacturing Company. Sewing-machine-carrying cradle. The cradle having a normal position in which a sewing machine carried by the cradle is maintained in sewing position and at least one retracted position in which the sewing machine is held in a location out of sewing position.

58565. Stora Kopparbergs Bergslags Aktiebolag. A method of carrying out the treatment of iron alloys with oxygen containing gases. Introducing an oxygen containing gas into a reaction chamber above the molten body and discharging reaction gases from the chamber.

58566. Stora Kopparbergs Bergslags Aktiebolag. Method by oxidizing treatment of iron alloys with an oxygen rich gas. Oxygen rich gas is mixed with water and possibly other materials in the alloy to prevent evolution of smoke.

58567. Pending.

58568. A. Schreiber. Sewage-treatment plants. Wherein the curved bricks having a rib are arranged in successively following layers while interstices between them are filled by smooth curved bricks.

58569. Metropolitan-Vickers Electrical Company Limited. Improvements relating to dynamo-electric machines. (October 13, 1955.) Inner frame of stator positioned within outer frame annulus and borne by one or more axially extending co-operating surfaces provided on the annulus and inner frame.

58570. Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey. Improvements in or relating to the manufacture of triple super-phosphate. Reacting crude phosphate with dilute phosphoric acid.

58571. Woodall-Duckham Construction Company Limited. Improvements relating to the discharging of coke from horizontal coke oven batteries. (October 7, 1955.) Comprising a transmitter located on one of the operating machines and adapted to project a beam of electromagnetic radiation parallel to the longitudinal axes of the ovens.

58572. Mo Och Domsjo Aktiebolag. Process for the production of surface tension reducing or surface active agents. By reacting in the liquid phase organic substances with a gaseous stream consisting of sulphur trioxide mist and other gases.

58573. Badische Anilin & Soda-Fabrik Aktiengesellschaft. Process for the production of 3-halogen-phenothiazines substituted on the nitrogen atom of the phenothiazine nucleus by a basic radical. A 3-halogenphenothiazine is treated with phosgene at 2-50 atmospheric pressure, and if desired, the product is converted into an amino ester, and then decarboxylated.

58574. Montecatini Societa Generale Per L'Industria Mineraria E Chimica. Jacketed gasket. Outer layer of heat and corrosion resistant plastic material.

OCTOBER 6.

58575. Principal, Bengal Textile Institute, Serampore. Fully automatic handloom with provision of being operated by small electric power when desired. Being provided with means for transmitting motion from the slay through two shafts by a gear and chain mechanism for obtaining the secondary motions of the loom.

58576. M. A. Chaudary. Improvements in and relating to composition for the spinning of cotton fibres. Consisting of sulphated or sulphonated alkaline

oil mixed with pure sodium or potassium silicate solution and kerosene oil or petroleum.

58577. M. A. Chaudary. An improved method and means for treating cotton fibres and yarn. Impregnating cotton fibres with an oil emulsion or composition by means of a wick which transfers the said composition or emulsion from a tank.

58578. Ing. Bretislav Nevotny. Slide valve arrangement for the suction control in two-stroke engines. Webs of the crank shaft from the distributing member and the inlet of the gas takes place on the circumference of the cylindrical surface of the crank webs.

58579. Dunlop Rubber Company Limited. Improved method of moulding rubber or rubber-like materials, and apparatus therefor. (October 14, 1955.) Comprising two or more part mould means for supporting these in spaced part relationship and withdrawing air from cavity and abutting faces thereof and completely closing the mould.

58580. Element Limited. A method of and furnace for refining glass. By passing electric current through glass between horizontally placed electrodes so as to promote an upward convection flow of glass and withdrawing glass so as to exert a downward pull upon elemental volumes therein.

58581. Element Limited. Improvements relating to methods of and furnaces for melting or refining glass. By subjecting glass to heating effect of electric current passed between electrodes disposed at opposite ends of an outlet opening through which glass passes through a duct to a further chamber and passing an auxiliary current from said opposite ends and then through the duct.

58582. Transcontinental Development Company Trust Reg. Improvements in the production of tea concentrates. [Addition to No. 54105.] Comprises extracting into aqueous solution water-soluble constituents of green leaf, oxidising the constituents in solution by heating, initially evaporating under vacuum 3 to 4 per cent. of said solution and collecting and retaining separately the resulting distillate, concentrating said solution and restoring to the heavy concentrate said separately retained distillate.

58583. R. A. Cole and K. K. Nag. Improved synthetic resin compositions containing inorganic metal compounds. Comprising synthetic resins with inorganic metal compounds or alloys.

OCTOBER 8.

58584. M. K. Dalal. Improvements in or relating to electric water heaters. Comprises a heating coil, a water inlet tube, a water outlet tube, an asbestos cement plate inside the receptacle and an asbestos disc fitted at the top.

58585. Void.

58586. Inventa A. G. für Forschung und Patentverwertung. Process for the production of polyamides. Catalytically heating polyamides of low molecular weight at an elevated temperature.

58587. N. V. De Bataafsche Petroleum Maatschappij. Paraffin wax compositions. Comprising crystalline paraffin wax and minor amount of aromatic extract having a viscosity of at least 350 SSU at 210° F.

58588. St. Anne's Board Mill Company Limited. Improved method and apparatus for manufacturing paper or fibrous board. By adding subsequent layers of watery pulp on opposite faces of base layers and dewatering the same from exposed surfaces.

58589. British Telecommunications Research Limited. Improvements in or relating to telephone or like systems. (October 12, 1955.) Having subscribers' meter fees recorded on a register device of the magnetic drum type.

58590. British Telecommunications Research Limited. Improvements in or relating to telephone or like systems. (October 14, 1955.) Employing a register device of the magnetic drum type.

58591. The General Electric Company Limited. Improvements in or relating to methods of, and apparatus for, severing glass tubing. (October 14,

1955.) Which comprises a repetition of the steps of pre-heating an annular zone of the tubing and then passing an electric current round a circumferential path to effect severing.

58592. Montecatini Societa Generale Per L'Industria Mineraria E Chimica. Articles polytetrafluoroethylene having cementable surface areas and method therefor. The article is characterised by a body of non-porous sintered polytetrafluoroethylene and a cementable zone on the surface of the body consisting of a porous layer of polytetrafluoroethylene integral with the body.

58593. K. Abildgaard. Method for the production of a crystalline calcium salt of phenoxymethyl penicillin sparingly soluble in water. (October 19, 1955.) Calcium salt is added to a solution of a substance dissociating phenoxymethyl penicillin ions.

58594. G. A. M. Wyndham. Improved means for lengthening garments and other articles. Consisting of a strip of material folded upon itself a number of times so as to create superposed folds, each fold being secured to all the folds by a separately removable stitching.

58595. Metal Trim Limited and E. Penkala. Improvements in or relating to rolling mills. (October 27, 1955.) One bearing housing of each roll assembly, being provided with swivel means engaging guide tracks in respective pedestal while the housing is located against axial movement.

58596. J. D. Dobson and W. Oakes. Method of and means for panel beating. (October 14, 1955.) Consists of an anvil-shaped head component which is joined to a handle by means of a ball and socket joint.

58597. Council of Scientific and Industrial Research. A vehicle lamp devices. Lamps connected to steering mechanism for angular movement during turning of the vehicle.

58598. VDO Tachometer Werke Adolf Schindling G.m.b.H. Warning contact device for tachographs. Having fixed contact rails and parallel to them adjustable contact rails which can be set at prescribed speed.

58599. VDO Tachometer Werke Adolf Schindling G.m.b.H. Adjustable double contact warning device for speedometers of the eddy current type. A cam plate mounted on the eddy current bell presses an insulated cam point which closes one after the other two electrical contacts of which one lights warning bulb and the other operates audible signal device.

58600. VEB Zentrale Entwicklung Und Konstruktion Des Elektro-Maschinenbaues. A device for the compounding of single phase or three phase generator. Magnetic ring arranged on the armature of rotary field converter which is magnetically low saturated at the normal load working range.

58601. Void.

OCTOBER 9.

58602. The Indian Oxygen & Acetylene Company Private Limited. Method of reducing the content of non-metallic hydrides in a gas or gas mixture. (October 13, 1955.) Contacting with aqueous solution containing ferric and ferrous salts, heavy metal salts, phosphoric or acetic acid and mineral acid.

58603. St. Anne's Board Mill Company Limited. Improved method and apparatus for manufacturing paper or similar fibrous product. (October 20, 1955.) Wherein the watery pulp is sprayed into a throat provided by co-operating upper and lower permeable bands.

58604. Deutsche Gold-Und Silber-Scheideanstalt Vormals Roessler. Process for separating gaseous or vaporous substances more especially isotopes. (September 27, 1956.) Splitting the mixture to be separated into peripheral stream and core stream.

58605. Texaco Development Corporation. Production of lubricating oils. Subjecting lubricating oil in admixture with hydrogen and in presence of catalysts to mild hydrogenation and then subjecting the lubricating oil so treated, in admixture with hydrogen and in presence of catalysts to a temperature of 400° to 650° F. and a pressure of 750 to 5000 psig.

58606. Pending.

58607. The Union Joinery and Importing Company Limited. Improvements in extensible masts and the like. (October 13, 1955.) Means comprising pulley blocks direction changing pulleys and cables or chains detachably secured to the mast above the pulley level.

58608. Imperial Chemical Industries Limited. New heterocyclic compounds. (November 9, 1955.) Void after publication. Reacting together β -decalone, hydrogen cyanide ammonia and carbon dioxide.

58609. Reynolds Metals Company. Method and apparatus for expanding pressure welded panels between dies. Expanding the panel from zero to predetermined final expansion between dies of which one is yieldable.

58610. Void.

58611. James Mackie & Sons Limited. Improvements in and relating to cop winders. (October 19, 1955.) The traverse member is designed to apply a frictional drag to the yarn very near the point at which the yarn is laid on the nose of the cop.

58612. "LICENCIA" Talalmanyokat Ertekesito Vallalat. Automatic let-off motion for looms. A periodically released warp beam brake, a warp tensioning device in which the tension is produced by weights and the load thus heated is transmitted through springs to the back rest which tensions the warp beams.

OCTOBER 10.

58613. J. & E. Arnfield Limited. Improvements in or relating to motion transmitting apparatus. (October 11, 1955.) Comprising a first and second movable member each of which is connected to a piston movable in a hydraulic cylinder.

58614. J. & E. Arnfield Limited. Improvements in or relating to machine tools. (October 11, 1955.) A spindle rotatably mounted within a sleeve provided with means for rotating the sleeve, and a centre eccentrically mounted on the spindle.

58615. Reynolds Metals Company. Method and apparatus for expanding a composite plate. Confining one side of the plate against rigid surface by applying superatmospheric pressure to other side and applying simultaneously a fluid pressure to interior unbonded area.

58616. Coal Industry (Patents) Limited. Improvements in ring roll presses. (October 17, 1955.) Rolls and rings eccentrically located rotate and means for different peripheral speeds of rolls and rings.

58617. The English Electric Company Limited. Improvements in and relating to the cooling of circuit breakers. (October 27, 1955.) Spaced away sun shield surrounds circuit-breaker cooling surfaces.

58618. The Norwich Pharmacal Company. Improvements in or relating to the manufacture of nitro-furan derivatives. (August 24, 1956.) Condensing 5-nitro-2-furaldehyde with a 3-amino-2-thioxazolidone.

58619. G. D. Khanna. Manure pit latrines. Manure pit latrine has two chambers connected to closets by leading in pipe having control valve.

58620. B. Banerjee. Antibiotic dentifrice composition. Containing one or more of antibiotics selected from the group consisting of Bacitracin, Tyrothricin, Polymixin, Penicillic acid B sodium salt, chlortetracycline, oxytetracycline and Neomycin.

58621. Reynolds Metals Company. Electrical member for transformer. Comprising an elongated strip of foil.

58622. Hercules Powder Company Incorporated. Process for working up polyolefins. (April 19, 1956.) The crude polymer or suspension thereof is subjected to hydrolysis in an alkaline medium by steam distillation.

OCTOBER 17.

58623. D. Napier & Son Limited. Hollow blades for turbines and the like. (November 8, 1955.) Hollow blade part having aero foil cross section for substantial portion of its length and transition portion of varying cross section between aero foil portion and end attached to root part, platform part

fitting around hollow blade part where aero-foil portion joins transition portion; platform parts of blades assembled as a ring abut forming a portion between the two portions of the blades.

58624. Compagnie Francaise Des Matieres Colorantes. Process for the preparation of oxidation dyestuffs on textile fibres. (September 19, 1956.) Oxidising on the fibres, a substituted derivative of phenylglycine.

58625. T. & H. Smith Limited. The preparation of new quaternary salts. A phenacyl halide is reacted with an organic carboxylic ester of tropine or of pseudotropine.

58626. Pending.

58627. Orr & Sembower, Inc. Improvements in or relating to boilers having a main fluid fuel burner and a pilot igniter unit communicating with a main combustion chamber. Blowers for supplying air to main burner and pilot unit, separate means for supplying feed to main burner and pilot unit, means for controlling fuel, supplying means so that air and fuel are supplied to pilot unit independently of main burner, pilot unit including a tube with one end opening into combustion chamber, ignition means in the tube, and flame retention means in tube.

58628. Societe Nouvelle Des Etablissements Brandt. Improvements in and relating to foldable fin arrangements for projectiles. Each of fins mounted pivotally on central body of rocket or projectile comprise two members connected together for pivotal movement.

58629. A. H. Hunt (Capacitors) Limited. Improvements in or relating to electrical capacitors. (October 13, 1955.) Metal free areas on the metal coated dielectric or carrier strip, are formed by the action of a chemical or reagent.

58630. Saunders Valve Company Limited. Improvements in and relating to diaphragm valves. (October 14, 1955.) Shallow transverse weir separating the inlet and outlet ports and mechanism pressing diaphragm into closing position.

58631. M. S. Frenkel. Mixing apparatus. (October 14, 1955.) Comprising at least one internal helical thread like operating surface defining two part-spaces passage for medium entry exist first within helical thread having varying cross-section and second space bounded by tangent surface of tops of said thread with corresponding opposite sense variation of cross-section.

58632. British Insulated Callender's Cables Limited. Improvements in or relating to electric cable couplings. (October 24, 1955.) Of the kind in which the mating contacts are positioned in a two-part metal housing of which the parts make a flame-proof detachable connection with one another.

58633. The Goodyear Tire and Rubber Company. Improvements in brake disc. Flat annular metallic disc partially separated into sectors by slots some extending to the outer and some to the inner periphery.

58634. The Goodyear Tire & Rubber Company. Spring loaded grip such as for hydraulic brake controls. Telescopically nested conical bushing force a coil spring about the rod between the conical bushing and a tubular nut.

58635. The Goodyear Tire & Rubber Company. Improvements in pump for water-cooled brake. A pump mounted on the wheel includes a piston and cam means mounted on the wheel forces cooling liquid on the brake members during braking operation.

58636. Anciens Etablissements P. Destombes & Cie. Improvements in and relating to card-wire band for flexible card-clothing. A plurality of groups each comprising two zones covered with needles and one intermediate zone free from needles.

58637. Dunlop Rubber Company Limited. Improvements relating to the production of shaped composite material suitable for use as an upholstery covering. (November 22, 1955.) [Addition to No. 55140.] Wherein material comprising layer of foam rubber attached to a flexible sheet is confined under pressure between two shaping tools after vulcanization of the foam rubber.

58638. Dunlop Rubber Company Limited. Apparatus for operating a series of electrically actuated elements. (Addition to No. 55669.) Endless band having legible indications of operations in sequence, moves on with different operations.

58639. The English Electric Company Limited. Improvements relating to journal bearing lubricators. (October 21, 1955.) Absorbent wick means carried by a pivoted holder biased into engagement with the rotatable bearing.

58640. The Dow Chemical Company. Improvements in or relating to stabilization of polyvinylpyrrolidone and compositions containing same. The composition contains a major portion of polyvinylpyrrolidone and a minor proportion of zinc formaldehyde sulphoxylate.

58641. Power Jets (Research & Development) Limited. Apparatus for the control of flow of ducted fluids. (October 21, 1955.) Comprising plurality vanes each pivotable about longitudinal axis and means controlling said pivoted upon variation of fluid velocity.

58642. The Singer Manufacturing Company. Presser mechanism for sewing machines. Comprising an externally threaded bushing screwed into a part of the machine casing and having a bore housing connections between the bushing and the spring and an axially slidable rod.

58643. Void.

58644. Gestetner Limited. Improvements in or relating to collapsible containers. Having therein non-tubular member extending from shoulder to bottom to define passageway on collapse of container walls.

58645. American Cyanamid Company. Production of new steroids of the Δ 1, 4-pregnadiene series. Δ 4-pregnene is subjected to the fermentative action of organisms to produce 16 oxygenated steroid.

58646. N. V. Philips Gloeilampenfabrieken. Improvements in or relating to methods of stud welding and combinations of a stud and an electrically conductive member for use in these methods. Using electrically conductive member provided with continuous cavity through which stud can be moved but movement being prevented by the head of the stud, diameter of which exceeds diameter of cavity, until the head has melted.

58647. Pilkington Brothers Limited. Improvements relating to the manufacture of flat glass in continuous ribbon form. (October 18, 1955.) Wherein a fire finish is produced on both surfaces of the ribbon by immersion in a bath of molten metal inert to the glass.

58648. Pilkington Brothers Limited. Improvements relating to the manufacture of flat glass in continuous ribbon form. (October 18, 1955.) Wherein a fire finish is obtained on the ribbon by immersion in a bath of molten metal by creating an entry zone in the bath and maintaining in the bath and outside the entry zone a temperature gradient.

58649. Acrow (Engineers) Limited. Improvements in or relating to weighing machines. (October 18, 1955.) Void after publication. Pressure of weight communicated to indicating device through liquid and load carrier supported at points by levers actuating compressible capsule common to all levers and thus producing a liquid pressure determined by the sum of the loads carried at different support points.

58650. H. E. Johnstone. An improved re-inforcement for use in repairing ruptures in pneumatic tyres. (December 9, 1955.) Patch being formed of a number of overlying fabric plies, each adjacent ply intersecting other at angle and of equal length and width.

58651. Ciba Limited. New benzimidazoles and process for their manufacture. 1-(lower tertiary amino-lower alkyl)-benzimidazoles which have a benzyl group and a nitro group in 2- and 5-positions respectively are prepared by known methods by cyclisation or condensation.

58652. Void.

58653. Void.

58654. Kyowa Hakko Kogyo Kabushiki Kaisha. Method of producing amino acids. A glutamic acid producing organism is cultured in a liquid medium, and pH is adjusted to 6-9.

58655. A. J. B. S. Amiragoff. Piezodynamic relay. Two bi-morph crystal units each fixed at three corner points; free ends of v-shaped reed connected to free corners of units which, move in opposite direction by torsion of units when a voltage is applied displacing vertex of reed.

58656. Societe Metallurgique Technique Et Commerciale. Induction welding method and apparatus. Opposed edges are maintained in predetermined spaced relationship electrical heating currents being induced along the opposed faces, and pressure is applied to opposed edges to bond them together.

58657. Aktiebolaget Svenska Aluminiumkompaniet. Improvements in or relating to supports for electric transmission lines. Supporting member and wire groove has such a small radius of curvature, that maximum bending stress in supported portion of wire will be less than tensile stress therein, and such a length that the curvature and thus bending stresses in freely suspended portions outside wire groove will be less than curvature of wire and bending stress therein respectively within supported portion.

58658. Void.

58659. Void.

OCTOBER 18.

58660. Void.

58661. Void.

58662. Void.

58663. Void.

58664. Void.*

58665. United States Steel Corporation. Conductor roll and method of making the same. Comprising a steel shaft, barrel and support surrounded by cast copper casing, surrounded in turn by copper plating and a chrome plating.

58666. Olin Mathieson Chemical Corporation. Heavy-metal salts of 2-mercaptopyridine-1-oxides and methods of preparing same. 2-Mercaptopyridine 1-oxide or a water soluble salt thereof is interacted with a water.

58667. The British Vacuum Flask Company Limited. Improvements in and relating to expandable stoppers for bottles. Comprising resilient stopper element through which extends a hollow column, means on column, to compress the element to radially expand it and a hollow plug to close and extend into the column whilst over part of its length being spaced from wall of the column to provide an air insulating space around at least a part of the plug.

58668. Colgate-Palmolive Company. All purpose scouring cleanser. Cleanser in particulate form includes silica higher alkyl benzene sulfonate detergent tartaric acid, and bentonite and has a pH of about 2.5 to 3.5 in a 1 per cent. aqueous slurry.

58669. Standard Telephones and Cables Limited. Electric Signalling system using paired pulses. In which one signal emitted by a "tacan" beacon, is transmitted in the form of pairs of pulses with the spacing between the pulses pairs of, differing from the spacing between the pulses of a pair, while another type of signal is emitted in which spacing between pairs is the same as the spacing between pulses of each pair.

58670. James Mackie & Sons Limited. Improvements in and relating to cop winders. (October 19, 1955.) Each spindle is provided with a supply package creel disposed immediately in front of the plane of the spindles and adapted to accommodate at least one large supply package.

OCTOBER 22.

58671. Ing. A. Cink. Apparatus for flame cutting of profiled tube ends. Copies the penetration curve on the tube directly from the surface on where to be welded.

58672. Ing. A. Cink. Apparatus for flame cutting of perpendicular cylindrical apertures on cylindrical surface. Central spindle of the apparatus secured in the centre of the aperture to be cut, the sleeve for burner and the copying roller being placed at opposite sides.

58673. Ing. A. Cink. Apparatus for flame cutting planer penetrations on cylindrical and other surfaces. A plurality of levers with parallel pivot axes, mounted on a support on one end and having a cutting burner at the other.

58674. Ing. A. Cink. A hand carriage apparatus for flame cutting of tubes. Low four-wheel carriage carrying burners and resiliently fastened by a chain to the pipe.

58675. Ing. A. Cink. A roller chain lock. One of two jaws rotatable around a pin is provided with a recess for the sleeve of another chain link.

58676. Natvarlal Bhikhabhai & Co. Private Ltd. Improvements in or relating to toys. The toy comprises a cylindrical body having a stem of hard substance; the stem slidably fits in the body.

58677. E. Lawrence. Improvements in or relating to beds. [Addition to No. 56459.] Transverse edges of mattress supporting sheet having bent upwardly to desired height and then beaded.

58678. T. L. Chari. Telugu Typewriter. Signs of consonants are provided on dead keys while consonants or parts of consonants are provided on live keys.

58679. T. L. Seaborne. Improved diaphragm-operated master pulsator for milking machines. Having unbalanced diaphragm system, a connection to vacuum and connection to atmosphere and valvular means connected to diaphragm system, arrangement being such that valvular means apply vacuum and atmospheric air pressure alternately to diaphragm system and the unbalance of such diaphragm system automatically causes actuation of valvular means to reverse the application of vacuum and atmospheric pressure to diaphragm system.

58680. T. L. Seaborne. Improvements in vacuum-operated master pulsators for milking machines. Having two operating diaphragms and two diaphragms acting as valves, coupled to operating diaphragms, and valve diaphragms control application of vacuum and air pressure alternately to operating diaphragms and unbalance of latter diaphragms automatically actuated valve diaphragms to reverse application of vacuum and air to operating diaphragms.

58681. Phillips Petroleum Company. Novel polymeric compositions and process for production thereof. Comprising olefin poly of molecular weight of at least 500 and natural rubber or synthetic rubbery copolymer of conjugated dienes.

58682. Phillips Petroleum Company. Process for production of drawn polymers such as filaments and film and the drawn polymers so produced. Extending olefinic polymers, cold drawing at between room temperature and softening point and heating to below said softening point.

58683. Void.

58684. Void.

58685. Vacu-Blast Limited. Improved abrading machines. (October 21, 1955.) Abrasive fed to the wheel adjacent the axis of rotation collects against cylindrical rim and means for impeding the movement from axis to rim.

58686. Imperial Chemical Industries Limited. Pre-annealing treatment of titanium metal. (October 21, 1955.) Applying to the surface of the metal before heating a scale modifying composition comprising an alkali metal nitrate with or without a diluent, and pickling metal after heating.

58687. Imperial Chemical Industries Limited. New anthraquinone dyestuffs. (October 28, 1955.) Reacting 5-nitro-4-anilino 1:8 dihydroxy anthraquinone with formaldehyde to sulphuric acid.

58688. Fisher & Ludlow Limited. Improvements in conveyor rollers. Rollers rotate on flexible shaft which conforms to the belt configurations with different loads.

58689. C. Hausler. Improvements relating to Machines for Bending Curved Shapes. Journal bearings of bending rolls operatively connected to drive means controlled by means under control of sensing lever engaging

template roll and initially adjusted by leading end of work piece operation of drive means causes retraction of feed side bending roller and extension of rear side bending roller so as to make it exert bending pressure.

58690. E. I. Du Pont De Nemours and Company. Improvements in relating to polymeric compounds and products containing the same. (June 21, 1956.) Copolymerising a quaternary salt of an acrylic ester and an ethylenically unsaturated monomer.

58691. The English Electric Company Limited. Improvements in and relating to air-break electric circuit breakers. (October 27, 1955.) Having main and arcing contact pairs in parallel and actuated by common mechanism, of positive locking means preventing movement of movable arcing contact in opening sense and released when main contacts reach during opening operation a separation sufficient to prevent restriking of an arc between them, the arcing contacts engaging at a second small separation of main contacts during closing operation of circuit breaker.

58692. Societa Farmaceutici Italia. Improvements to the process for obtaining steroid hormone analogs, substituted in the 4 position. (Addition to No. 57920.) A 4, 5-epoxy-3-keto-steroid is treated with BF_3 in an organic solvent.

58693. Societa Farmaceutici Italia. Improvements to the process for preparing steroid hormone analogs substituted in the 4 β - and 5 α -positions. (Addition to No. 57920.) A 4, 5-epoxy-3-keto-steroid is reacted with a mineral acid in an organic solvent.

58694. Societa Farmaceutici Italia. Triphenylmethylethers of corticosteroids. A 21-hydroxy cortico-steroid in pyridine is reacted with 1-2 moles of triphenyl methyl chloride.

58695. Societa Farmaceutici Italia. Process for preparing steroid hormone analogs substituted in the 4-position, having anabolic activity. (Addition to No. 57920.) A 4, 5-epoxy steroid is reacted with mineral acid in an organic solvent.

58696. Clarke, Chapman & Company Limited. Improved method of producing finned tubes. (October 24, 1955.) Method of forming consisting in continuously applying a strip of metal edgewise to a rotating tube and welding thereto so as to form helical fin thereof.

OCTOBER 23.

58697. Void.

58698. Howa Kogyo Kabushiki-Kaisha. Improvements in or relating to draft assembly in spinning frame. A stabilizer in combination with weighting devices, stabilizes the draft.

58699. E. K. Cole Limited. Improvements in or relating to television receivers. (October 27, 1955.) With A.G.C. applied to a video I.F. valve and in which the cathode of said valve is connected to earth or chassis via a low-value resistance which is shunted by a condenser.

58700. Simon-Carves Limited. Improvements in valve arrangements for coke ovens. (December 17, 1955.) Valves for admission of rich gas and lean gas to heating flues are placed in close proximity and operating means mounted so that movement of one valve can be obtained if the other valve is in the 'open' position.

58701. Pritchett & Gold and E.P.S. Company Limited. Improvements in the production of porous tubes. Filling thermoplastic polymer powder into space between outer and inner dies of a mould heated by circulating hot oil through passages in outer die and through inner die, circulating cold oil through inner die, removing inner die circulating cold oil through outer die and removing outer die.

58702. A. Sarrasin and P. Sarrasin. Twisted Armature Bar for reinforced Concrete Structures. Having constant area of cross-section over its whole length and means to prevent its helicoidal displacement.

58703. State of Israel and Dr. M. Neeman. Inseticidal compositions. Consisting of DDT and as synergist p-chlorobenzene-sulphonic acid-N-diethylamide.

58704. Pending.

58705. H. J. Bardt. Production of elemental silver of bactericidal activity. By reducing a silver compound in an aqueous solution of a strong acid by means of a reducing agent.

58706. J. M. Huber Corporation. High carbon black content printing ink and process of producing same. Comprising at least 16 per cent. by weight of total ink carbon black and hydrocarbon vehicle constituted of greater than 80 per cent. by weight of mineral oil hydrocarbon, dispersing agent and antiflocculant.

58707. Mechanical Products, Inc. Electric manual on-off switch having automatic overload protection. Actuator movable relative to latch means upon exertion of manual effort, means urging actuator to open position, means connecting latch means with movable contact means, the connecting means operated to condition the latch means to permit actuator to be moved to open position by urging means upon the current responsive means being actuated to move the movable contact to open position.

58708. C. T. Koshy. Single shaft automatic handloom. Sley movement operates main shaft, cylindrical cam on which moves a lever for shadding and picking operations.

58709. Phillips Petroleum Company. Novel process for polymerization of conjugated dienes and polymers so-produced. Contacting monomeric diene with catalyst comprising (a) hydride or organo compound of one of metals Al, Ga, In, Tl, Be and (b) tri or tetra halide of one of metals Ti, Si, Th, Zr, Sn, Pb, Hf, Gr and Ce.

58710. C. S. Rao. Improvements in or relating to compasses, dividers or like mathematical instruments. Having both the component legs, adjustably expandable.

58711. Pending.

58712. Plastic Textile Accessories Limited. Improvements relating to the production of fabrics. (November 9, 1955.) Continuously extruding plastic through a pair of sets of die orifices relatively displaceable transversely to the direction of extrusion and in the direction in which the sets extend.

58713. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to methods of applying light-diffusing layers to glass surfaces and glass objects, more particularly incandescent lamps having a light-diffusing layer obtained by these methods. Wherein prior to the settling of the oxide on the surface a hygroscopic metal compound is applied thereon.

58714. Douglas Fraser & Sons Limited. Installation for the application of emulsions to jute or other bast fibres, or leaf fibres. Means for applying an oil-in-water emulsion to the fibres and means for metering separately the rates of flow of the emulsion and of the water before dilution of the emulsion.

58715. Koninklijke Nederlandsche Hoogovens En Staalfabrieken N. V. A device for discharging the quenched coke from an inclined discharging surface in a coking plant. Comprising a carriage adapted to move along the surface, part of the carriage engages the coke and upon movement causes the coke to flow to the conveyor, and having also a terminal arresting surface for arresting the flow of coke.

58716. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Manufacture of new Sulphonyl-ureas salts of these compounds and of antidiabetic preparations containing such compounds. (May 8, 1956.) Sulphonyl ureas substituted in nitrogen atom are formed by reacting compounds which on reaction introduce urea-linkage.

58717. Metalsstrut S.r.l. Process for manufacturing lattice girdes for ceilings. Bending metal band to form longitudinal top boom and two lateral flanges, part of latter being cut and bent to struts in latticework wall.

58718. N. V. Onderzoekingsinstituut Research. False-Twisting device and process for crimping threads or yarns with said device. In which a body

provided with an axial bore is rotatably mounted and opposite the extremity of the bore an encircling body of hard material provided with a bore is rigidly attached to the rotatably mounted body.

58719. Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning. Closure or adapter for cylindrical ampoules for surgical injection. (January 27, 1956.) Comprising a conical portion suitable for the reception of a mating conical member carrying an injection needle.

58720. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Novel quinoline compounds and process for the manufacture thereof. Condensing carboxymethyl-benzo[*z*]quinoline with β -phenyl ethylamine, subjecting resulting acid amide to cyclization and hydrogenating the cyclization product.

OCTOBER 24.

58721. M. C. Danes and A. C. Brunet. Improvements relating to impulsion system for the shuttles in power looms. Oscillating movement of the loom table automatically generates a pneumatic force which being controlled by plurality of valves impels shuttle.

58722. E. K. Cole Limited. Improvements in or relating to induction coils. (November 2, 1955). Metal caps having central opening for wire stem to be fixed are snugly fitted over each end of tubular core coil former.

58723. The English Electric Company Limited. Improvements relating to control apparatus for textile ring spinning and the like frame drives. (October 27, 1955.) Rotation of ratchet wheel shaft of builder motion actuates linearly moving to operate speed-control switches.

58724. The General Electric Company Limited. Improvements in or relating to the manufacture of metallic bodies. (November 1, 1955.) Wherein a plurality of suitably shaped laminations are superimposed and brazed together to form the body.

58725. Compagnie Generale D'Electricite. Three-phase magnetic circuit. Comprising 3 cores and yokes connected together along a triangle, the cores and yokes being formed of superimposed and interleaved sheets, any one core being constituted by two bundles of sheets separated by an insulator and forming with each other an obtuse dihedral angle whose opening is towards interior of triangle.

58726. United States Rubber Company. Improvements in method of coating sheet metal with plastic. Applying a thermoplastic adhesive of vinyl chloridevinyl acetate copolymer modified by maleic anhydride and an acrylonitrile butadiene rubbery copolymer.

58727. E. I. Du Pont De Nemours and Company. Improvements in or relating to polyurethane elastomers. (July 20, 1956.) Reacting non-polymeric glycol with organic diisocyanate and with polymeric glycol.

58728. Bata Shoe Company Private Limited. A machine for moulding and vulcanizing footwear. Comprising in combination plurality of stationary moulding and vulcanizing elements and plurality of movable moulding and vulcanizing elements, said movable elements being engageable with said stationary elements.

58729. U. N. Sadhukhan. A process for reconditioning cycle gear wheels and free wheels. Worn out teeth are grinded out and a circular rim having full size teeth rivetted or soldered to the former.

OCTOBER 25.

58730. Void.

58731. Tokyo Shibaura Electric Co., Ltd. Improvements in or relating to the damping apparatus for watt-hour meters. Having yoke of channel type, a spur gear rotatable upon one leg of yoke, an adjusting pinion on said leg, a permanent magnet fixed upon the spur gear and a clearance to receive a rotary disc between the magnet and the other leg of the yoke.

58732. W. Brandl. Improvements in or relating to a temperature controlled heating element. Including a sealed container containing a fluid heat

transfer medium, a pressure sensitive element and a pivotally mounted controlled means.

58733. Societa Farmaceutici Italia. Preparation of 19-nortestosterone analogs substituted in the 4-position, having anabolic activity. (Addition to No. 57920.) A 4, 5-epoxy-19-nortestosterone is reacted with a mineral acid in an organic solvent.

58734. J. Stone & Company (Deptford) Limited. Improvements relating to electro-magnetic carbon-pile regulators. (October 26, 1955.) Dashpot provided with means for automatically relieving pressure at certain times and also a fixed aperture vent.

58735. J. Stone & Company (Deptford) Limited. Improvements relating to electromagnets, particularly for electromagnetic regulators. (October 26, 1955.) Temperature compensation means arranged to act upon the limbs of the magnet to control distance between them.

58736. J. Stone & Company (Deptford) Limited. Improvements relating to electromagnetic carbon-pile regulators. (October 26, 1955.) One or more ballast resistors in conjunction with the regulator is sealed within the regulator enclosure or with an enclosure in communication with it.

58737. J. Stone & Company (Deptford) Limited. Improvements relating to electromagnetic carbon-pile regulators. (October 26, 1955.) The wall of the enclosure surrounding the pile connected by an extension to the enclosure of the magnet system and corrugations being provided on the extension.

58738. Standard Telephones and Cables Limited. Improvements in or relating to telephone subscriber's instruments. (January 4, 1956.) (Addition to No. 53725.) Transmitter feed inductor and transistor base capacitor replaced by resistors.

58739. Standard Telephones and Cables Limited. Improvements in or relating to circuits for generating electrical pulses. (January 25, 1956.) [Addition to No. 51471.] Comprising means for feeding to the circuit timing pulses, source of bias potential for inhibiting firing by said timing pulses, means for feeding to said circuit a starting pulse and means for producing gating pulses capable of annulling said bias potential and produce output pulses, consisting of pulse spacing feed back network.

58740. Veb Zentrale Entwicklung und Konstruktion Des Elektro-Maschinenbaues. An improved stator for single or multi phase electrical machines and machines employing such stators. Square shaped sheet staggered at 45, 30, 22.5 or less, free corners of sheet in every layer are separately stamped and piled up together and separately punched sheet corners receive the same bolt holes, holding slot, riveting holes and airing holes.

OCTOBER 26.

58741. Monsanto Chemicals Limited. Waterproofing building materials. Treating with silicone and substance which protects the coating thereof.

58742. The Cementation Company Limited. Improvements in or relating to the formation of subterranean anchorages. (October 27, 1955.) Comprising drilling a hole into the ground, producing a cavity at the bottom thereof, filling the cavity with liquid concrete to form an artificial boulder to secure a high tensile wire therein.

58743. The Cementation Company Limited. Improvements in or relating to the formation of subterranean anchorages. (October 27, 1955.) Wherein a hole is drilled in the ground, filled with grout, and then re-drilled to obtain a cavity into which a high tensile wire is grouted.

58744. Boots Pure Drug Company Ltd. New acetanilide derivatives. (November 3, 1955.) Treating dichloroacetanilide phenol with sulphur trioxide and pyridine or with acid halide.

58745. N. V. Nederlandsche Combinatie Voor Chemische Industrie and Laboratoria Pharmaceutica Dr. C. Janssen N. V. Improvements in or relating to 1, 1-diphenyl-3-dialkyl-amino-propanes, their tertiary and quaternary salts, and methods of preparing them. Treating α , γ -diphenyl- β -diisopropylamino-butyronitrile with sodium amide or alkyl magnesium halide.

58746. Void.

58747. N. V. Nederlandsche Combinatie Voor Chemische Industrie and Laboratoria Pharmaceutica Dr. C. Janssen N. V. Improvements in or relating to new analgesically active substituted alpha, alpha-diphenyl- γ -amino-butyrarnides and the manufacture thereof. Reacting aminoalkylhalide with alkali-metal compound of a diphenylacetamide derivative.

58748. Libbey-Owens-Ford Glass Company. Method and mold for bending glass sheets. Locating heated sheet on shaping surface, bending thereon portion of first marginal area when opposite area thereof is maintained above, then contacting the remainder with said shaping surface.

OCTOBER 27.

58749. Markham & Company Limited. Improvements in or relating to crushing apparatus. Cmprising relatively movable shearing members having comparatively small clearance with shearing edge of one to the other.

58750. Diamond Alkali Company. Mechano-chemical method for the treatment of molten metal. Subjecting a shallow stream of molten metal to turbulent flow in a treating zone.

58751. Gevaert Photo-Producten N.V. Process for the preparation of linear high-polymeric aromatic anhydrides. (October 28, 1955.) Mixed anhydrides of monovalent lower fatty acids and aromatic, dicarboxylic acids are heated until a polymer is obtained.

58752. British Telecommunications Research Limited. Improvements in or relating to telecommunication systems. (November 3, 1955.) Information as to the desired destination which arrives over an incoming junction is registered on one track of a magnetic drum and in accordance with its value controls the selection of another track on the drum.

58753. Tootal Broadhurst Lee Company Limited. Process for the treatment of textile materials. (November 1, 1955.) Wherein the fabric is treated with a textile lubricating agent and with a resin forming intermediate condensation product formed from formaldehyde and melamine or a derivative thereof.

58754. Farbenfabriken Bayer Aktiengesellschaft. Alkylamino-acylanilides. (September 10, 1956.) Reacting ester of amino methyl benzoic acid with alkylaminoalkyl carboxylic acid or its derivative.

58755. H. R. Hochstrasser. Improvements in rotary appliances for facilitating the driving or extraction of piles or the like. Comprising inertia mass mounted rotatably about pile, means to impart alternating rotary movements thereto and abutments fitted to pile to limit its amplitude.

OCTOBER 29.

58756. Council of Scientific and Industrial Research. Improvements in the manufacture of maleic anhydride. Wherein the catalyst is prepared by fusing alundum, treating it with HCl and impregnating it with aqueous solution of vanadium and molybdenum salts.

58757. Council of Scientific and Industrial Research. An improved syphon. Wherein an isolating valve with a funnel is provided in between the two arms.

58758. Void.

58759. Void.

58760. Ciba Limited. New organic phosphorus compounds and process for their manufacture. Organic phosphorus compounds are prepared by reacting an alkyl phosphite with a halogen derivative of an acetic acid dialkylamide.

58761. Societe Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny & Cirey. Improvements in or relating to vinyl compositions and method of preparation thereof, method of covering impregnating or coating an article composed of glass with such compositions and an article composed of glass covered impregnated or coated with such

compositions. Comprising a vinyl resin an epoxide resin and hardener for later resin.

58762. Time Incorporated. Photosensitive printing plate. [Divided out of No. 54083; ante-dated to March 21, 1955.] Having a surface comprising a mixture of synthetic linear polyamide and 1-25 per cent. of an unsaturated compound having at least two $\text{CH}_2=\text{C}$ groups.

58763. Boots Pure Drug Company Limited. Dichloroacetanilide esters the manufacture. (March 9, 1956.) A phenol is reacted with phosphorus oxy chloride in presence of pyridine.

58764. Monsanto Chemicals Limited. Preservation of tea. (November 4, 1955.) [Addition to No. 54671.] Packing tea in a material coated with benzoic acid.

58765. The Goodyear Tire & Rubber Company. Improvements in vented curing bag. Provided with a plurality of venting grooves on the outer surface of the bag, said grooves extending in a radial plane relative to the axis of the bag.

58766. Standard Oil Company. Improvements in or relating to treatment of viscous solutions of normally solid polymers. Precipitating 2 to 15 per cent. by weight of the solid polymer present in the solution, separating the remaining solution from the precipitate and recovering further quantities of solid polymer from the solution.

58767. Tootal Broadhurst Lee Company Limited. Process for the treatment of textile materials. (November 1, 1955.) With lubricating agent and mixture of 1:8:1 to 3:1 of formaldehyde and urea and heating from resin in presence of ammonia as condensing agent.

58768. Veb Leuna-Werke-Walter Ulbricht. Process for raising the output of an installation for the manufacture of ammonia. Nitrogen hydrogen ratio being re-adjusted by adding necessary quantity of hydrogen or nitrogen in synthesis furnaces having increased inert gas content.

OCTOBER 30.

58769. Void.

58770. Automatic Telephone & Electric Company Limited. Improvements in telephone system. (April 15, 1954.) [Divided out of No. 54253; ante-dated to April 13, 1955.] Hunting circuit is provided in common to all the switches of the stage and a second hunting circuit is provided individual to each switch of the stage.

58771. Automatic Telephone & Electric Company Limited. Improvements in telephone systems. (April 15, 1954.) [Divided out of No. 54253; ante-dated to April 13, 1955.] A connection is set up from one trunk of the first group to one trunk of the second group by forwardly establishing marking circuits.

58772. Societe Nouvelle Des Etablissements Brandt. Improvements in and relating to projectile fuses. Comprising igniting means movable by resiliently yieldable means between inoperative and armed position locking in inoperative position by movable member and automatic unlocking therein.

58773. The Norwich Pharmacal Company. Aqueous solutions and other compositions comprising stabilized nitrofurazone. (October 24, 1956.) Containing nitrofurazone and from about 0.0001 to about 0.01 per cent. by weight of sodium or potassium dichromate.

58774. British Insulated Callender's Cables Limited. Improvements in or relating to the attachment of overhead conductors to insulators. (November 28, 1955.) A metal filling piece interposed between the insulator and a conductor of larger size than the groove of the insulator is designed to receive.

58775. Merck & Co., Inc. Counter-current extraction of novobiocin. Crude dilute novobiocin solution is extracted with an acidic organic solvent and the solvent extract is further treated with an aqueous alkaline buffer solution.

58776. Olin Mathieson Chemical Corporation. Selective hydrogenation of dihydrophthalic acid esters. Reacting a diester of 3:6-Oxy-3:6-dihydrophthalic acid with hydrogen in the presence of a hydrogenation catalyst.

58777. The British Cotton Industry Research Association. Improvements in and relating to the reduction and removal of dust at carding engines. Air exhausted from regions of junctions between main cylinder and flats at taken-in end, and between main cylinder and doffer cylinder.

58778. Pending.

58779. Pending.

58780. Farbenfabriken Bayer Aktiengesellschaft. New composite thermoplastic mixtures and the production thereof. (July 9, 1956.) Comprising 10-75 parts of copolymer of butadiene and acrylonitrile and ethylenically unsaturated monomer and 90-25 parts by weight of thermoplastic copolymer of styrene and acrylonitrile.

OCTOBER 31.

58781. Heinrich Koppers Gesellschaft mit beschränkter Haftung. Arrangement for gasifying finely divided fuels. Combustible gases before entering tubular boiler are subjected to a strong whirling motion.

58782. Automatic Coal Cleaning Company Limited. Apparatus for controlling and recording the operation of washer boxes. With means for measuring the amount of sink materials in the washer box are utilised to actuate controls for admission of raw materials and discharge of discards.

58783. Farbenfabriken Bayer Aktiengesellschaft. New thiophosphoric acid esters and their preparation. (July 18, 1956.) Reacting O, O-dimethyl-chlorothiophosphate with 3-nitro-4-chlorophenol or 3-nitro-4:6-dichloro phenol.

58784. Manufacture De Machines Du Haut-Rhin. An ordnance system. Constituted by the inner tube of a gun and by a missile made of two sections, supplemental grooves provided inside the bore of the gun and guiding member of the missile engaging said grooves.

58785. The Singer Manufacturing Company. Driving belt for a sewing machine or other machine. (November 7, 1955.) Plurality of non-metallic plastic clips formed on belt engage the grooves in pulleys.

58786. Veb Maschinenfabrik Polysius. Granulating table. Lower bearing pivot column of the table extends above the table forming a centrally located hollow column, a closing cap for the column fitted with a sprinkling device.

58787. C. Bonamini. A tubular element for protecting and supporting the active mass of positive electrodes. Single finished molded piece having cuts, openings, meshes and apertures for connecting which there is longitudinal means.

58788. R. A. Robert and P. Matge. System for releasing objects such as rocket-bomb support suspended from aircraft. Means adapted to exert on the rocket-bomb support at the movement of its release, a force aiding the force of gravity.

58789. M. Henry. Improvement of the tensile strength of metal products. Twisting metal in hot state and eliminating torsional deformation at lower temperature.

58790. F. L. Smidth & Co. A/s. Improvements relating to supports for large rotary drums. (November 3, 1955.) The drum is carried by self adjusting slide shoes each having one or more internal passages.

58791. Aktiengesellschaft Fur Unternehmungen Der Eisen-Und Stahlindustrie. Heat exchangers. A low temperature portion surrounds the high temperature portion.

NOVEMBER 3.

58792. Creed & Company Limited. Improvements in or relating to power supply equipment. (November 22, 1955.) Stable frequency and amplifier and variable gain means in said amplifier responsive both to motor current and amplifier output voltage.

58793. Standard Telephones and Cables Limited. Improvements in or relating to loading coil cases. (January 18, 1956.) Joining chamber and loading chamber interconnected by a gland having three outlets.

58794. Standard Telephones and Cables Limited. Machine tool control equipment. (February 13, 1956.) Electrical supervisory equipment electrically connected to electrical contacts of detectors.

58795. Ciba Limited. Pharmaceutical preparations containing a new 1:3:5-triazine compound. [Divided out of No. 55650; ante-dated to October 19, 1955.] Comprising 2-hydrazino-4, 6-bis-diethylamino-1, 3, 5 triazine or salts thereof with a pharmaceutical carrier.

58796. Ciba Limited. Pharmaceutical preparations containing reserpoxidine and/or a salt thereof. [Divided out of No. 54710; ante-dated to June 13, 1955.] The preparations comprise reserpoxidine and/or an acid addition salt thereof and a diluent or carrier.

58797. E. J. F. Powell. Improvements in or relating to the operation and locking of facing points of railway permanent way. Means provided on operating and locking device to adjust effective position of the facing point of the tongue rails can be adjusted to suit the ground conditions.

58798. National Malleable and Steel Castings Company. Improvements in or relating to car truck. A plunger anchored to one of the members and the casing anchored to the bolster resilient means within them.

58799. R. J. W. Kennell. Improvements in impulse sender mechanisms of automatic telephone dials. (November 25, 1955.) A pivoted actuating member operated by toothed impulsing wheel having notches elongated in the radial direction.

58800. Landers, Frary & Clark. Improvements in or relating to pressure cookers. Connecting means provided between handle bar and cover forming a tiltable but non-rotatable connection.

58801. Societe Des Usines Chimiques Rhone-Poulenc. Improvements in or relating to phenthiazine derivatives. (September 10, 1956.) Phenthiazine 10-carboxylates of diaminoalcohols are prepared by reacting a phenothiazine derivative to introduce the carboxylate residue by conventional methods.

58802. Dorr-Oliver Incorporated. Continuous purification of liquids. Impure liquids are treated in a central zone and intermediate zone and a filtration zone.

58803. Rodi & Wienenberger Aktiengesellschaft. Improvements in elastic link chains and bracelets. (July 24, 1956.) U-shaped connecting brackets connecting flexibly and expansively the link casings formed of two layers of rectangular casings and link casings of upper layer have an ornamental outer surface of greater width.

58804. Shri Ram Institute for Industrial Research. Improvements in or relating to the treatment of textiles or like material. Passing the material through a fluidised bed of solid discrete particles followed by a subsequent passage through a second gaseous chamber.

58805. Void.

NOVEMBER 5.

58806. Automatic Telephone and Electric Company Limited. Improvements in loading coil containers. (November 24, 1955.) Conductors from stub cables pass in spaced relationship through a barrier of solidified cold setting resin.

58807. Glaxo Laboratories Limited. Improvements in or relating to human dietary preparations. (November 11, 1955.) Comprising a pulverulent water-dispersible assimilable protein of low bulk density and a stable assimilable bland fat, absorbed in said protein.

58808. Imperial Chemical Industries Limited. Feed Control Mechanism. (November 8, 1955.) Void after publication. Resistance strain gauges attached to load-carrying beams connected into a multiple bridge circuit.

58809. Pending.

58810. Montecatini Societa Generale Per L'Industria Mineraria E. Chimica. Compositions based on 2, 4-dichlorophenoxyethanol, for the weed control in the rice fields. Containing 2, 4-dichlorophenoxyethanol mixed with diluents.

58811. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to circuit arrangements provided with two chokes. Cores surrounded by windings arranged closely adjacent and cores not surrounded disposed on both sides of cores surrounded by windings that all windings are situated between cores not surrounded, the cross-sectional area of the yoke not exceeding that of latter cores.

58812. S. I. Olsen. A locking mechanism in a vulcanizing press. Comprising a stationary lower part and an upper part arranged to be raised and lowered in relation to the lower part by hydraulic means.

58813. T. Yamaguchi. Hydraulic Ram Pump. Buffer tank provided with a spherical valve enclosing light gas as hydrogen and a siphone pipe removes excess air from the buffer tank ejecting the same in the lifting pipe.

58814. Maschinenfabrik Augsburg-Nurnberg A.G. Improvements in and relating to the construction of the combustion chambers of internal combustion engines. (July 31, 1956.) Metal lining within combustion chamber providing an air gap between itself and chamber wall.

58815. F. Hoffmann La Roche & Co. Aktiengesellschaft. Process for the manufacture of isoxazolidone compounds. A substituted α -amino acid which is anionically substituted in the β -position is condensed with phosgene, the product is treated with hydroxylamine and the α -aminohydroxamic acid is cyclised in the presence of basic agents.

58816. Barar Beads Manufacturers Private Limited, J. Bhushan and K. Chandra. Improvements in or relating to the gilding of glass beads. By depositing a thin silver film on the inner surface of a bead and giving on the outer surface thereof a film of an orange coloured compound.

58817. Ciba Limited. Acylamino carboxylic acid amides and process for their manufacture. α -amino-carboxylic acid esters of $\alpha:\beta$ saturated aliphatic β -hydroxy- or β -mercapto-carboxylic acid amide with at least one free amide and amino hydrogen atom each or salts thereof are rearranged by treatment with basic agents.

NOVEMBER 6.

58818. Void.

58819. Pending.

58820. E. G. Ritchie. Improvements in steam generating plant. Steam demands are met in part by operating controlling means controlling feed water and in part by operating controlling means controlling the firing rate of the boiler.

58821. Pending.

58822. M. E. Doumet. Improvements in or relating to cement. Mixing slurry prepared by wet process and powder by dry process to obtain mixture with water content of 10-35 per cent. before feeding to kiln.

58823. The Metal Box Company Limited. Improvements in or relating to the hermetic sealing of thin-metal containers. (November 11, 1955.) A mouth defining rim extending inwards from neck and a soft metal foil diaphragm stretched across the mouth and sealed to the rim and to the exterior of the neck by a heat-sealable thermoplastics.

58824. P. A. Atterby. Improvements in cosmetic preparations and methods of making the same. Comprising a solution of a saturated polymer of a lower alkane in an ester of a fatty acid with an alcohol, incorporated with known ingredients for cosmetics.

58825. Nihon Denki Tokei Kabushiki Kaisha. A motor clock provided with a spring automatically wound. Spring devised to take energy from the same motor supplying motive power and to operate an additional device other than time indicating mechanism.

NOVEMBER 7.

58826. Dronsfield Brothers Limited and S. W. Dronsfield. Improvements in or relating to camber grinding machines. [Divided out of No. 56510; ante-dated to February 9, 1956.] Comprising a machine bed, carriage slidable on bed and a rotatable cam like control mounted on the carriage.

58827. Merck & Co., Inc. Process for producing crystalline novobiocin. Treating concentrated solution of novobiocin-active material with alkanolic acids in aqueous alcoholic medium and recovering crystalline novobiocin.

58828. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Arc torch for arc-working articles. (July 5, 1956.) Nozzle of the torch comprises a replaceable annular insert of electrically conductive material, an arc constricting central passage and an outer wall cooperating with an inner wall of the nozzle to form cooling fluid jacket.

58829. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Method and apparatus for cutting or piercing a body of refractory material. (July 25, 1956.) Passing a stream of oxidizing gas and a combustible adjuvant powder through a ferrous metal pipe, igniting the mixture of powder and oxidizing gas issuing from the pipe and directing the flame against the body of refractory material.

58830. Gohei Tanabe & Company Limited. Springly water-soluble thiamine salts and process for preparing them. Bringing together aqueous solutions of water soluble thiamine salt and ammonium or an alkali metal higher straight-alkyl sulfate.

58831. Made Cognate to Application No. 57033.

NOVEMBER 8.

58832. The Director, Haffkine Institute. A process for the preparation of Para-Nitroacetophenone. Condensing p-nitrobenzoyl chloride with ethyl-aceto-acetate by the action of sodium or potassium hydroxide in non-polar solvent, effecting cleavage, hydrolysis and decarboxylation.

58833. Reynolds Metals Company. Refrigeration Compartment. Evaporator chamber is formed in a refrigeration tunnel compartment and a liquid refrigerant reservoir is formed by an unbonded protruberant area.

58834. British Timken Limited. Improvements relating to Cross-Roll Roller Bearings. (July 19, 1956.) One-piece outer race member, two sets of oppositely-inclined tapered rollers and a one-piece cage of annular form and tapering cross-section with apex.

58835. Void.

58836. Frank Speno Railroad Ballast Cleaning Co. Rail-grinder. Plurality of grinding heads supported by movable truck along rail are hydraulically actuated for adjusting grinding heads.

58837. The British Rubber Producers' Research Association. Improvements in the preparation of polymeric mixtures and compounds. (November 9, 1955.) Masticating a mixture comprising a polymer which is not rubber like at 25° C., a polymerisable olefinic polymer and if desired a plasticising solvent for the polymer.

58838. Pending.

NOVEMBER 9.

58839. R. Stasse. Rotary internal combustion engine. A vane providing a movable seal between a stator and a rotor and having one end slidable in a groove on one of the members.

58840. Reynolds Metals Company. Apparatus for expanding an unbonded portion of a pressure welded panel. A holding conduit adapted to be connected to the holding pressure chamber for transmitting a holding pressure.

58841. D. Napier & Son Limited. Hydraulic couplings. (December 5, 1955.) Cooling liquid pass through passages provided between vaned cup members and backing members.

58842. D. Napier & Son Limited. Boundary layer control for aircraft. (December 7, 1955.) Boundary layer air sucked away by an auxiliary compressor of a gas turbine propulsion unit.

58843. T. J. Smith & Nephew Limited. Improvements in and relating to the stabilisation of unvulcanised rubber. Composition consists of unvulcanised rubber a resin and a stabiliser.

58844. Imperial Chemical Industries Limited. Improvements in or relating to electric Initiators. (November 30, 1955.) Void after publication. Comprising two pole pieces connected by electric resistance wire surrounded by a bead of deflagrating composition comprising a mixture of oxidising and reducing agents, major portion of the reducing agent being powdered titanium.

58845. Void.

58846. Owens-Corning Fiberglas Corporation. Improvements in or relating to glass compositions. Having SiO_2 , Al_2O_3 , CaO , MgO , Na_2O , B_2O_3 , TiO_2 , ZnO , BaO , Fe_2O_3 , MnO , ZnO in certain proportions.

58847. Phillips Petroleum Company. Novel process and catalyst for production of olefin polymers. Contacting a polymerisable hydrocarbon with a catalyst consisting of an organo derivative of a Group IV—A metal, a hydride of metal from Groups II to VIII and a hydrogen halide.

NOVEMBER 10.

58848. A. M. Deprez. A method of producing a copal for technical purposes such as for the production of lacquers and plastics. Powdered copal suspended in water heated below boiling point and filtered residue is dried and melted.

58849. E. Uher. Improvements in or relating to driving means for motorised cycles. One gearing arrangement producing infinitely variable change in transmission connected to another gearing arrangement having reduction and step-up ratios.

58850. G. A. Clubb. Improvements in containers. (November 10, 1955.) Tapers slightly inwardly from top to base, detents and centering means disposed in the upper part at sides.

58851. British Nylon Spinners Limited. Improvements in or relating to the twisting of textile filaments. [Addition to No. 57766.] Twist tube internal surface is composed of non-abrasive material having high co-efficient of friction wherein filament and inner peripheral surface speeds ratio is not less than 0.5.

58852. Pending.

58853. Pending.

58854. Pending.

58855. Titan Co. A/S. Oxidation of trivalent titanium compounds contained in solid titaniferous materials. Admixing finely divided material with water or steam to form wet mass, exposing same to oxidizing gas at below 100°C .

58856. The Western India Tanneries Limited. Improved dust shields for axle boxes of railway carriages and the like and method of its manufacture. Consists one rigid flange having a collar and one or two more plies of semi-rigid discs cemented with one another.

58857. Lakhi Trading Company. Improved locking device for tiffin carrier and the like. (Post-dated to July 18, 1957.) With stud on top lid for tiffin pots inserted in hole in U-shaped frame rivetted to main frame and 2 hooks of lower of tiffin pots inserted in slots in limbs of main frame, after which they are locked by pivotally mounted locking plate having a slot and series of tiffin pots sandwiched between top lid and lower tiffin pot.

NOVEMBER 12.

58858. E. K. Cole Limited. Tuning device for a radio or television receiver or the like. (November 17, 1955.) In which the inductances of a plurality of coils are required to be jointly variable.

58859. H. Weslake. Improvements in or relating to cylinder heads for internal combustion engines. [Addition to No. 54212.] Inlet port is fed by at least two passages and inlet ports of two adjacent cylinders communicate with an induction pipe and through another passage or space.

58860. D. Napier & Son Limited. Improvements in fluid filtering apparatus. (November 15, 1955.) Filter apparatus has two or more filter units having inlet and outlet passages and a common clear fluid chamber.

58861. United States Steel Corporation. Method of preparing iron oxide fines and product thereof for steelmaking. By partially reducing iron oxide fines to remove 70 to 94 per cent. of the oxygen and agglomerating the same.

58862. Void.

58863. J. G. Hobbs. Improvements in or relating to internal combustion engines. (November 14, 1955.) Firing plug formed with two relatively movable electrodes one of which is mounted on the piston head and the other is stationary.

58864. Her Majesty's Postmaster General. Improvements in or relating to telephone bell ringing circuits. (November 14, 1955.) Consisting of a bell fed from an exchange central d.c. battery, a circuit for receiving and demodulating ringing signal sent from the exchange and applying the demodulating signal to a transistor connected to the bell.

58865. Takeda Pharmaceutical Industries Limited. Production of dihydrostreptomycin. Cultivating a strain of dihydrostreptomycin-producing micro-organism belonging to streptomycin in aqueous nutrient medium under aerobic conditions.

58866. Ciba Limited. Process for the manufacture of a 1:3:5-triazine compound. [Addition to No. 55650.] Wherein a 4:6-bis-diethylamino-1:3:5 triazine containing in the 2-position a free or etherified mercapto group is treated with hydrazine.

58867. D. Primavesi. Liquid fuel burner. Comprising a hollow double wall gasification body provided with holes in each of which is formed a primary flame and the hollow space interior to it receiving the fuel and with an external wall which is heated by a secondary flame.

NOVEMBER 13.

58868. Council of Scientific and Industrial Research. A process for the preparation of azelaic acid semiester suitable for making civetone dicarboxylic acid. Ester of dihydroxy stearic acid is oxidised to the semialdehyde ester which is further oxidised to azelaic acid semiester.

58869. Council of Scientific and Industrial Research. Refractory compositions comprising graphite and silicon carbide. The composition consists of graphite silicon carbide, a carbonaceous binder and aluminosilicate grog and a metal powder.

58870. Council of Scientific and Industrial Research. A process for the isolation of the cardioactive glycosides of digitalis. Treating digitalis glycosides tannates with a salt of barium, copper, manganese, zinc or ion exchange resin and subjecting the mixture of glycosides to chromatography over aluminium.

58871. PECHINEY Compagnie de Produits Chimiques et Electrometallurgiques. Process and apparatus for enriching titanium ores. By heating a mixture of TiO_2 containing ore with carbon in three stages, i.e., first at 400°-1300° C., then at 1600°-2500° C. and finally at 1200°-2000° C.

58872. Rodi & Wienenberger Aktiengesellschaft. Improvements in and relating to elastic link straps particularly watch bracelets. The upper and lower links form shell-like casings which are open in downward and upward directions respectively, each link has side walls projecting into two adjacent links of other layer through open side thereof and curved leaf springs are provided within said links.

58873. Rodi & Wienenberger Aktiengesellschaft. Improvements in and relating to elastic link straps particularly watch bracelets. Connecting brackets and springs are disposed to allow strap to be expanded from con-

tracted position such that links of one layer enter between the links of other layer and the links are disposed in same plane.

58874. The General Electric Company Limited. Improvements in or relating to refrigerator condensers, and refrigerator condensers combined with compressors. (November 24, 1955.) Comprising at least one heat exchange tube and at least one heat exchange fin extending as a flange running longitudinally of said tube and formed integrally with at least a longitudinal section of the tube.

58875. British Insulated Callender's Cables Limited. Improvements in or relating to turn-buckles. (December 5, 1955.) End members having an externally threaded part and a plain shank part, respectively shorter and longer than the internally threaded part of the sleeve it engages.

58876. Void.

58877. Void.

58878. F. L. Smidth & Co. A/S. Improvements to methods of and apparatus for preheating cement raw material or the like. Cement raw material is preheated before it is sintered in a rotary kiln.

58879. Oldham & Son Limited. Improvements in or relating to lids for electric batteries. (January 25, 1956.) Lid having in the regions at which battery elements are required to protrude therethrough, removable portions of reduced thickness permitting easy removal thereof prior to positioning the lid on battery cell.

58880. Davidson & Company Limited. Improvements in or relating to means for controlling the supply of liquid fuel to burners. (November 18, 1955.) Comprising a spring closed valve in the fuel supply line, a diaphragm adapted for a portion of atomising fluid, and a trip device which comprising two elements which controls the atomising fluid.

NOVEMBER 14.

58881. Void.

58882. Societe Des Usines Chimiques Rhone-Poulenc. Improvements in or relating to phenthiazine derivatives. [Addition to No. 55752.] Introducing at 10-position of phenthiazine ring a 2:4-bis-dimethylamino-1-butyl group.

58883. Imperial Chemical Industries Limited. Ethylene polymerisation. (November 30, 1955.) Subjecting ethylene to a pressure above 500 atmospheres and to temperature above 10° C. in presence of α -substituted acyl peroxide catalyst.

58884. General Aniline & Film Corporation. Improvements in or relating to amine-formaldehyde resin composition. Comprises a mixture of a melamine formaldehyde or urea-formaldehyde resin and a polymer of N-vinyl Pyrrolidone.

58885. Warner-Lambert Pharmaceutical Company. Therapeutic compositions. [Addition to No. 55026.] Comprising a 5-amino-hexahydro pyrimidine compound and a pharmaceutical carrier.

58886. Union Carbide Corporation formerly known as Union Carbide and Carbon Corporation. Polymeric materials and method of producing same. Reacting mixture of primary and secondary aliphatic glycols with aliphatic diiso compound.

58887. Caterpillar Tractor Co. Signalling system between earth moving machines. Comprising a coupling transformer having primary coil in first machine, a secondary coil in second machine, a control device operable to control energization of primary coil, and signal device operable by secondary coil.

58888. South African Council for Scientific and Industrial Research. Systems for determining relative positions by means of transit time of electromagnetic waves. (November 15, 1955.) Two measuring frequencies are modulated on to a carrier wave for transmission from two points, and two comparison frequencies are derived by heterodyning each of the modulated waves.

58889. Combined Locks Paper Co. Apparatus and method for treating paper. Passing the web of paper successively through two press roll arrangements.

58890. Combined Locks Paper Co. Method of coating paper. While passing the web of paper through press rolls, paper treating material is transferred on to the surface of the web by one roll.

58891. Diamond Alkali Company. Continuous chlorine purification process. Gaseous chlorine is passed through liquid chlorine a portion of the liquid chlorine, is continuously removed and treated to separate organic impurities therefrom.

58892. Void.

58893. S. C. Das. Septic tank-cum-latrines. Comprising chamber with pan having discharge mouth above the level of mouth of overflow pipe, baffle wall therein extending below and above liquid level and gas outlet and drain pipes.

NOVEMBER 15.

58894. Void.

58895. A. H. Bahnson Jr. Textile processing plant. Providing means for entraining in air stream, the heat given off by the motor and for conveying the motor heated air stream into a duct extending longitudinally of the machine.

58896. The Goodyear Tire & Rubber Company. Improvements in method of forming a rim. Drop center section has a radially inwardly recessed portion along the mounting edge of the rim and joined to the drop center portion by a portion extending angularly inwardly from it towards the rim mounting.

58897. The Indian Oxygen & Acetylene Company Private Limited. Controlled atmospheres for the heat treatment of steels. (November 16, 1955.) Producing atmosphere by passing a gaseous nitrogen fraction containing from .04 to 2 per cent. O_2 over heated charcoal at $650^\circ C$. or above and removing any carbon dioxide and water formed.

58898. Vereinigte Österreichische Eisen-und Stahlwerke Aktiengesellschaft. Process and apparatus for surface hardening steel articles. By preheating the work piece surface to a temperature lying above the A_{c3} point in the range of $950-1160^\circ$, and keeping the work piece in a zone of incandescence.

58899. Wahl Bros. Filament winding machine. (January 16, 1956.) Mechanism being provided for winding two filaments in opposite directions about a core in two twice intersecting orbits with said core.

58900. W. J. Holdich. Improvements in apparatus for the vacuum dehydration of animal or vegetable materials. (November 16, 1955.) Void after publication. Subjecting material in freely suspended state to partial vacuum and convection or radiated heat and removing moisture evolved.

58901. K. Sundararajan. A replaceable automatic fuse and indicator. Plurality of pairs of metallic jaws equally spaced along the circumference of an insulated wheel draws fuse wire from supply reel.

NOVEMBER 16.

58902. Council of Scientific and Industrial Research. A process for the preparation of 9:10 thiopegan derivatives containing phenolic hydroxy groups. Reacting anthranilic acid hydrochloride with α -thiocyanoketone.

58903. Council of Scientific and Industrial Research. Preparation of 2-hydroxy and 2-chlorothiazoles containing phenolic residues in position 4. A thiocyanoketone is reacted with dilute mineral acid.

58904. G. Capra. Additional wheel designed to be attached laterally to a driving wheel of a vehicle, in particular a farm tractor plurality of movable rods having sharpened ends projecting radially linked at their other ends with a support rotatably arranged on the hub.

58905. R. Pyzel. Process for the production of hydraulic cement. Passing cement forming materials in a fluidized bed against a gas.

58906. The British Petroleum Company Limited. Transportation of liquids. (November 17, 1955.) Void after publication. Diaphragm of flexible, impervious material dividing the vessel into two compartments.

58907. J. G. Lindmark. Improvements in or relating to the printing of coloured pictures or the like on a transparent base material. Matting transparent base on one surface and printing different coloured picture components laterally reversed on matted surface and in reverse order to that employed when printing on paper so that composite final picture will be direct and correctly coloured as viewed through the base.

58908. Gerity-Michigan Corporation. Machines for burnishing articles. Tank with burnishing liquid and a plurality of radially extending rotary burnishing means projecting into tank.

NOVEMBER 17.

58909. Council of Scientific and Industrial Research. New foaming agents for production of foamed concrete. By emulsifying a rosin soap in an aqueous solution of animal glue.

58910. Void.

58911. A. Heindel. Computing device. Guide-rails mounted within a portable frame, buttons slidably arranged and movable by stick on them, two slide rules on each side of frame.

58912. Societe Des Laboratoires Labaz. Carbamates of propine-2'-yl(1)-1-carbinols-(1) and methods of preparing the same. Reacting halogenoformate with secondary or tertiary propine-2'-yl-(1')-1-carbinol in presence of tertiary base and treating the reaction product with ammonia.

58913. Fairbairn Lawson Combe Barbour Limited. Frame work for a machine. (December 13, 1955.) Comprising plurality of flat bearers with upper surface machined, rigid tie members or beams and a plurality of stands or shafts bearing supports on machined faces.

58914. Fairbairn Lawson Combe Barbour Limited. Improvements in textile drafting or spinning machines. (December 24, 1955.) A coil spring associated with each carriage acting via a lever upon a roller shaft to provide roller pressure.

58915. Societe Technique Pour L'Utilisation De La Precontrainte (S.T.U.P.) (Procedes Freyssinet). Improvements in anchorage devices for pre-stress reinforcement members. Tapered wedges carried on a deformable frusto-conical body form the key for anchoring wires.

58916. Void.

58917. Ing. J. Chleboun and Ing. V. Svejda. Improvements in or relating to assorting of coal in heavy liquids. The material is conveyed into a flat vessel as a suspension and then forming the suspension to circulate in a closed circuit in a laminary way to separate heavier part from the lighter part.

58918. Compagnie Generale De Telegraphie Sans Fil. Improvements in ultra-high-frequency discharge tubes. (January 3, 1956.) Comprising a structure for delaying the U.H.F. wave in two mutually intersecting directions wherein means are provided to produce standing wave in one of said directions, one or more electron beams directed parallel to said direction.

58919. Compagnie Generale De Telegraphie Sans Fil Travelling wave and standing wave electron discharge tubes. (January 12, 1956.) Comprising a structure for delaying the U.H.F. wave in two mutually intersecting directions, wherein two crossed electron beams are arranged to be directed respectively parallel both said directions.

58920. Pending.

NOVEMBER 19.

58921. Void.

58922. Void.

58923. V. C. Shah. Device for producing loud intermittent explosions. Comprising an acetylene generating unit, a control device to control the rate

of dripping of water into the carbide tank, a detonating chamber having communication with gas generator and atmosphere through a nozzle and exhaust.

58924. Void.

58925. Societe Des Usines Chimiques Rhone-Poulenc. Improvements in or relating to phenothiazine derivatives and processes for their production. 3-Methyl thio phenothiazines basically substituted on the nitrogen atom are prepared by conventional methods starting from a suitable phenothiazine or a diphenyl derivative.

58926. Rodi & Wienenberger Aktiengesellschaft. Improved elastic link strap particularly for use as a watch bracelet. An arm of a connecting bracket inserted into each open end of each casing of one double-link consisting of an upper and a lower casing.

58927. E. Freyssinet. Hydraulic jack for tensioning and anchoring reinforcing members in the production of prestressed concrete structure or the like. Jack comprising an annular member designed to be positioned about the opening and abutted against the structure.

58928. F. J. Boundy. Electric ignition magneto. (November 25, 1955.) Laminated structure disposed within wall of the crank case to present a number of fixed pole pieces upon the inner face of the wall.

58929. The Textile & Allied Industries Research Organisation. Machine for testing loom pickers. Comprising a fixture for holding a picker for testing, a reciprocating hammer having a striking tip simulating a shuttle tip and is mounted for motion to and said fixture for striking a picker.

58930. Pending.

58931. The British Drug Houses Limited. Improvements in or relating to cyclopregnane derivative. (December 7, 1955.) A pregnenolone aryl sulphate, or methyl pregnenolone sulphate is heated with an alkali metal salt of a weak acid, water and water-soluble organic liquid.

58932. Pending.

58933. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to resistors having a negative temperature coefficient. Consisting of nickel oxide having 0.1 to 10 mol per cent. of lithium oxide and from 1 to 30 mol per cent. of copper oxide.

58934. F. Hoffmann-La Roche & Co. Aktiengesellschaft. New sulfonamide of the pyrimidine series and process for the manufacture thereof. Acetamidine or salt thereof is condensed with an α -alkoxy methylene acetoacetic acid ester, the product converted into 5-amino compound which is reacted with a p-substituted benzene sulphonic acid halide and, if desired, the p-substituent is converted into an amino group.

58935. N. Takita. Improvements in a spindle holding device of a spinning. An inner tube with a ball or roller bearing at its upper end and a barrel shaped pot with a spherical disc at its bottom, the spindle being supported by the ball or roller bearing at its upper part and supported its bottom end in a recess of said pot.

58936. Unterharzer Berg-Und Huttenwerke G.m.b.H. Process and apparatus for decomposition of zinc-lead mixed oxides. Wherein the mixture is first reacted with producer gas containing hydrogen sulphide and then the PbS formed is evaporated in a weakly reducing atmosphere.

NOVEMBER 20.

58937. E. K. Cole Limited. Improvements in or relating to loudspeaker mounting arrangements. (December 1, 1955.) Single panel aperture extending over whole of front of loudspeaker including grill having multiplicity of projections whose peaks have small surface area and lie close to fabric.

58938. Caterpillar Tractor Co. Ripper implement. A parallelogram linkage arrangement pivotally secured to bracket attached to a vehicle and comprises spaced stabilizing links and spaced draft links.

58939. Parmelee Plastics Company. Improvements in or relating to method and apparatus for producing plastic lenses. By mixing a monomeric

resin of di-ethylene glycol bis (allyl carbonate) with a catalyst and polymerize it by heat in a mould.

58940. S. P. Banerjee. Improvements in or relating to prestressed concrete structures. The prestressing element has a standard anchorage at one end thereof and is secured at the other end to a pin.

58941. Heraeus Quarzschmelze G.m.b.H. Improvements in electric heating appliances for radiation. Heating conductor is surrounded by a covering of silicon dioxide without any intermediate layers or embedding materials.

58942. Pending.

58943. Pending.

58944. The Orient General Industries Ltd. Improvements in or relating to electric fans. Unit comprising a fan motor and blades mounted intermediate of motor ends, enclosed within a guard or like mounted on motor, and the unit is mounted by the help of a guard or like at two points within a support which permit the unit with guard or like to clear through the support when the unit is swivelled along the axis of the mounting points.

58945. The Orient General Industries Ltd. Electric fans. Fan motor comprising one external stator located by two end shields and one internal rotor mounted on a shaft, a cup shaped cover fitted to the shafts carrying blades and motor together with blades, is enclosed within a guard and the guard acts as supporting medium for fan and the guard held by supports forming principal support for fan with guard.

58946. The Mond Nickel Company Limited. Improvements relating to the electrodeposition of platinum. (April 10, 1956.) Wherein the conditions of electrolysis are such that rate of deposition of platinum on cathode when plotted against the concentration of hydrogen chloride is represented by a point within a definite area.

58947. H. Okuno and T. Okuno. Improvements in process for manufacturing rayon pulp or other pulp of high purity from bagasse. Loosening raw bagasse in dry state screening to separate fibre boiling fibre with fresh acetic acid and then treating with caustic soda.

NOVEMBER 21.

58948. Ciba Limited. Derivatives of new antibiotics called foromacidins and process for their manufacture. [Divided out of No. 54551; ante-dated to May 23, 1955.] Foromacidin A. B. C. or D. or salts thereof are treated with acid hydrolysing agents to produce Forocidin A. B. C. or D.

58949. Void.

58950. Sylvania Electric Products Inc. Discharge lamp phosphor. Comprising between 0.1 to 0.8 moles of zinc oxide between about 2.50 to 2.98 moles of combined calcium oxide and zinc oxide and about 0.02 to 0.12 moles of stannous oxide, all per mole of phosphorous pentoxide.

58951. Union Carbide Corporation, formerly known as Union Carbide and Carbon Corporation. Thread guides for textile machines and the like. (September 27, 1956.) Void after publication. Holder made of ceramic material and coated with heat setting material, an insert in said holder of corundum and fired the assembly.

58952. Technicolor Corporation. Machine for inserting-headed pins into perforated ribbon. Carrier wheel supports detachably the pins with their shanks projecting the spacing between seats for pins being equal to the opening in the ribbon.

58953. Ruhrgas Aktiengesellschaft. Method of smelting ores in powdery or finely granulated condition. Wherein the ores are introduced into stream of non-reducing carrier gas and then solid or liquid fuel is hurled into it.

58954. Aktiebolaget A. Ekstroms Maskinaffar. Installations for cleaning during operation, gas-swept surfaces in heat exchange apparatus. A feed unit is connected to the bottom end of vertical conveying conduit for gaseous fluid.

58955. F. L. Smidth & Co. A/S. A cooler and a cooling installation for powdered materials. Comprises powder compartment of heat conducting material with means for liquid cooling outside surface of the compartment.

NOVEMBER 22.

58956. A. C. Ripke. Device for transmitting rotary motion. Wheel driven in circular course motivates an endless shaft-and-gear train arranged in a circle surrounding the axis of such wheel's circular course.

58957. Saunders Valve Company Limited. Improvements in and relating to fluid controlling valves. (November 30, 1955.) A flexible indicating member connected at one end to a part of the valve which rises and falls as the valve is opened and closed.

58958. T. H. Shelley. Improvements in or relating to adhesive. (March 15, 1956.) Forming a mixture of an auto-oxidisable resin and an antioxidant and then compounding the mixture with an elastomeric polymer.

58959. Messrs. Devidayal Stainless Steel Industries (Private) Limited. Improved pocket tiffin or lunch box and the like. Comprises two rectangular containers, the smaller one being transversely fitted at one side of the larger container and having locking means, rubber rollers and a sealing gasket.

58960. Void.

NOVEMBER 23.

58961. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to electric lamps for motor cars. Extremity of the axially extending filament adjacent to the lamp cap secured to the current supply wire.

58962. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to head-lights for motor cars. Closure glass of the head-light provided through an angle at the centre with light refracting means decreasing in strength towards the exterior.

58963. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to glass vessels comprising at least a cylindrical re-entrant portion through the inner end of which supply conductors are passed in a vacuum-tight manner and connected to electric contacts secured to a supporting member. Cylindrical part of the re-entrant portion has a non-circular cross-sectional area inside which central projecting part of support plate enters.

58964. K. H. Sunden. Firing pin mechanism for hand grenades. Cock co-operating with a firing pin is provided with one or projections arranged to engage with handle when grenade is secured or thrown.

58965. Von Kohorn International Corporation Incorporated. Thread guide for winding of yarn cakes of synthetic fibres. Comprising a funnel having an upper funnel portion and a depending elongated tubular stem having a bottom downwardly directed discharge opening.

58966. Void.

58967. United States Steel Corporation. Magnetic impulse switch. Consisting of a non-magnetic ring a magnet mounted on the periphery of the ring, and a stationary magnetic pick-up head mounted adjacent the periphery of the ring.

58968. George Spencer, Moulton & Co. (India) Private Ltd. Improvements in or relating to rollers for textile machinery. Endless constraining insert embedded in material of endless band or tyre of internal diameter smaller than roller rim permits tyre to be stretched on the rim to limit stretching and hold it snugly on the rim.

NOVEMBER 24.

58969. Void.

58970. E. V. Kruschandl. Cementitious compositions. [Divided out of No. 53965; ante-dated to March 5, 1955.] Comprises caustic magnesium oxide mineral aggregates, and magnesium chloride.

58971. Void.

58972. L'Air Liquide, Societe Anonyme Pour L'Etude Et L'Exploitation Des Procedes Georges Claude. Process for the regeneration of an adsorbent

bed. (October 31, 1956.) Circulation of the bed heating fluid which is sent opposite to the fluid to be purified, is discontinued after the temperature of the end of the bed has risen, but before the temperature of the whole bed has become uniform.

58973. Void.

NOVEMBER 26.

58974. Imperial Chemical Industries Limited. New monoazo dyestuffs. (November 25, 1955.) Reacting at least one molecular proportion of cyanuric chloride with a monoaminoazo compound.

58975. Heinrich Koppers Gesellschaft mit beschränkter Haftung. Process and arrangement for the gas-tight delivery of ash from a gasification chamber. Lumpy ash mixed with a fine grained substance under the operating pressure of gasification and the mixture is conveyed with the formation of a gas-tight plug through a pipe into a screening arrangement.

58976. Heinrich Koppers Gesellschaft mit beschränkter Haftung. Process for Compressing Gases. The gas after being precompressed to 10-15 atmosphere, is first completely freed from sulphur under pressure in the last stage and then fed to the following pressure stage for further compression.

58977. United Plastics Industries, Inc. Improvements in producing embossed thermoplastic film and the like and apparatus therefor. Providing means to prevent leakage of air into embossing roller to which suction is applied from inside, along boundary of said film and roller.

58978. Pending.

58979. Void.

58980. Rydboholms Aktiebolag. A method and means in looms for holding the weft end of a bobbin to be introduced into the shuttle. Weft end, released from surface of bobbin by flow of air, caught and held by mechanical means during transfer operation.

58981. Automatic Telephone & Electric Company Limited. Improvements in inductive coupling arrangements at telephone exchanges. (November 29, 1955.) Inductive coupling arrangement at an exchange including a two position switching device.

58982. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to methods of manufacturing an electrically conductive pattern on an insulating support. Including the steps of forming by electroplating on a parting layer, providing a non conductive resist to the electroplated layer in the negative image of the desired pattern, depositing conductive metal on the electroplated layer not covered by the resist.

58983. The British Drug Houses Limited. Improvements in or relating to cyclopregnan derivatives. (January 3, 1956.) Converting 16-dehydropregnene lone into 6-hydroxy-3:5-cyclopregn-16-en-20-one which is catalytically hydrogenated.

NOVEMBER 27.

58984. Void.

58985. M. Israel, Dr. A. Baniel and Dr. R. Blumberg. A process for the preparation of water-soluble metal sulfates, phosphates or nitrates. Reacting metal chlorides with acids or acid sulphate or phosphate.

58986. M. Israel, Dr. A. Baniel and Dr. R. Blumberg. Process for the preparation of metal salts and of acids. Reacting a salt in solid state with a reactant acid in an organic solvent, and water.

58987. M. Israel, Dr. A. Baniel and Dr. R. Blumberg. Process for the preparation of aqueous phosphoric acid. Tricalcium phosphate is decomposed with hydrochloric acid in aqueous reaction system.

58988. E. F. Baxter. Improvements in and relating to a method of shaping synthetic plastic material for the production of articles such as tinsel decorations.

(November 30, 1955.) Wherein a flexible strip of plastic materials is slit inwardly from one edge but leaving an unsilt portion and twisting the latter portion.

58989. Imperial Chemical Industries Limited. New hydantoin compounds (December 23, 1955.) A hydantoin compound is treated with an alkylating agent to effect N-alkylation.

58990. British Insulated Callender's Cables Limited. Improvements relating to machines for lapping strips of material on electric cable conductors and cores. (November 28, 1955.) A set of at least two tape guides fixed against longitudinal movement and gear drive providing predetermined speed ratios.

58991. The General Electric Company Limited. Improvements in or relating to metal vapour electric arc converters. (December 6, 1955.) Inverted cup-shaped member of heat conducting material wetted by vaporisable metal to produce cathode spot anchoring edge.

58992. Dorr-Oliver Incorporated. Filter. Comprising header plate having plurality of spaced-apart slots, plurality of U-shaped filter leaf frames, for aminos filter plate elements bridgingly secured to adjacent bars on each side thereof to form filtrate-receiving space, a reticulate means blanketing the frame and its plates and means for securing onto the header the frame.

58993. Void.

58994. Void.

58995. S. Immovilli. Improved electric stator. An inside stator unit presenting open slots and outside stator unit, both annular construction and concentric, the outer stator unit being blocked between two shoulders of the outer casing.

58996. Laake Oy. Method of preparing derivatives from difficulty reactive organic compounds. A compound containing phenol or other reactive hydroxy group is reacted with quaternary ammonium salts or amino sugars or both.

58997. Organon Laboratories Limited. Biologically active preparations and the manufacture thereof. Comprising as active ingredient one or more pregnane or allopregnane compound.

58998. Kyowa Hakko Kogyo Kabushiki Kaisha. A method of producing L-glutamic acid by fermentation. A strain of Micrococcus no. 534 is cultured in a medium at a pH of 6—9.

58999. Kyowa Hakko Kogyo Kabushiki Kaisha. Method of producing L-glutamic acid. Biotin is added to the culture medium and the pH is adjusted to 6—9.

59000. F. Hoffmann-La Roche & Co. Aktiengesellschaft. 4-amino-3-isoxazolidone compounds and process for the manufacture thereof. The compounds are prepared by treating a mixture of hydroxyl amine and an α -amino- β -halogeno-substituted or unsubstituted propionic ester with a strong base in the presence of water.

59001. R. E. L. Warburton and W. H. Sandford. Improvements in or relating to lifting and pulling devices and the like. A sleeve mounted on the drum coaxially therewith having means for tightening the grip of the clamping faces on the rope.

NOVEMBER 28.

59002. G. K. Chandak. A powder resistor. Consists of a resistive element constituted by a mixture of a fine powder of metal and dielectric material insulating container with holes and conductive rods.

59003. Void.

59004. T. J. Smith & Nephew Limited. New and improved orthopaedic bandages and methods of making the same. Having applied thereto, in separate layers, plaster of Paris and fusible water-dispersible intermediate condensation product of melamine-formaldehyde synthetic resin.

59005. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to ferromagnetic materials, more particularly for ferromagnetic bodies for use at frequencies of at least 50 mc/s, methods of manufacturing such materials and ferro-magnetic bodies consisting of such material. Comprising of mixed crystals having a structure similar to compound $\text{BaFe}_{12}\text{O}_{11}$, and with the formula

II IV III

$\text{BaCo Ti Fe (12-2a)}^\circ$ wherein $1.0 < a < 1.6$.

a a 19

59006. N. V. Tervalon, Maatschappij voor Voedingsmiddelen op Wetenschappelijke basis (Scientific Food Co.). Improvements in or relating to method of producing bifidus-active food preparations. Containing 80 per cent. lactulose to give 0.25-7 gms. of lactulose per 70 cal. combustion value.

59007. Made Cognate to application No. 58092.

59008. J. N. Masci. Improvements in or relating to sterilization of free flowing powders. Treating with at least 0.5 per cent. of lower epoxide and least 0.05 per cent. of water at 70—120° F. for 5 hours to 15 days.

59009. Prvni brnenska strojirna, zavody Klementa Gottwalda narodni podnik. A furnace for burning pulverised coal. Comprising a set of corner burners, a set of turbulence burners, the corner burners being placed in lower plane and their flames being directed toward the centre of the furnace.

59010. Void.

NOVEMBER 29.

59011. Void.

59012. N. V. De Bataafsche Petroleum Maatschappij. Fuel compositions. Comprises a hydrocarbon base material and a vinyl or vinylidene compound.

59013. The Dow Chemical Company. Process for treating shaped polymeric articles to improve dye-receptivity. Impregnating with monomer capable of being polymerised to dye-receptive polymer a polymerising *in situ*.

59014. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Azobenzene derivatives and process for the manufacture thereof. Reacting isoxazole with azo benzene -4, 4'-disulphonic acid dihalide.

59015. Veitscher Magnesitwerke Actien-Gesellschaft. Converter. Between the converter shell and the performed blocks serving as a working lining a safety layer of refractory bricks is provided for.

59016. George E. Failing Company. A drilling apparatus. An eductor connected with down-leg of a siphon, a pump for supplying a fluid under pressure to eductor for lifting drilling fluid and cuttings.

59017. Montecatini Societa Generale Per L'Industria Mineraria E Chimica and K. Ziegler. Process for improving the mechanical and processing properties of linear high polymers of propylene. (November 28, 1956.) Subjecting the polymer to thermal degradation until the average degree of polymerisation is reduced to a value corresponding with an intrinsic viscosity of 0.8 to 1.5.

NOVEMBER 30.

59018. Philips Petroleum Company. Process and catalyst for polymerization of polymerizable hydrocarbons. Catalyst consists of chromium oxide and oxide of phosphorous associated with at least one of silica, alumina, zirconia and thoria.

59019. Esso Research and Engineering Company. A grid arrangement for distributing a gaseous reactant through a fluidized solids bed. Horizontal grid plate supported on vertically disposed, gas impervious, circular-support initiating at the vessel wall.

59020. J. R. Geigy Aktiengesellschaft. 1, 2-diphenyl-3, 5-dioxo-pyrazolidines and process for their preparation. 4-alkylidene 1, 2-diphenyl-3, 5-dioxo-pyrazolidine is reacted with an alkyl-magnesium halide and the addition compound hydrolysed.

59021. E. Correa. An Improved process for the gasification of Liquid Fuels, particularly Gasoline. Comprising mixing gasoline and air in a car-

burette, compressing it into a cylinder to gasify it and discharging the gas through a water seal.

59022. Infilco Incorporated. Apparatus and process for continuous ion exchange. Maintaining granular ion exchange material as suspension in liquid under treatment in treating zone, diffusing air into said suspension and withdrawing treated liquid from circulating suspension.

59023. J. S. & F. Folkard Limited. An improved method and means for joining thermoplastic synthetic resin pipes, pipe fittings and the like. (April 16, 1956.) Socket and spigot parts melted separately and compressive force on the socket wall acting to maintain melted surfaces pressed together.

59024. J. Stone & Company (Deptford) Limited. Improvements relating to battery charging systems. (December 3, 1955.) Comprising battery charged by alternator through rectifier wherein a resistor is connected in series with a load the resistor being arranged to be cut out of the e.m.f. of battery exceeding that supplied by alternator, by a relay responsive to current dependent upon difference between e.m.f.'s, which current is produced with auxiliary load connected across alternator through an auxiliary rectifier.

59025. N. V. Philips' Gloeilampenfabrieken. Fungicidal preparations. [Divided out of No. 54848; ante-dated to June 28, 1955.] Trichloromethyl carboxyl benzene thiosulphonate dissolved or suspended in a solid or liquid diluent or carrier.

DECEMBER 1.

59026. Bright Brothers Private Limited. Improvements in or relating to goggles or like protective devices for the eyes. Frame having groove into which eyepiece is fitted and then hooks of eye-piece are engaged into slots of the frame thereby providing interengaging means for frame and eyepiece which are detachably assembled together.

59027. A. G. Davies and E. Buncel. Improvements in or relating to organoperoxy compounds. (December 2, 1955.) An organic hydroperoxide is condensed with a halo, amino, alkoxy or hydroxy silane.

59028. Societe Des Usines Chimiques Rhone-Poulenc. Improvements in or relating to antibiotic substances. By esterifying an antibiotic of the spiramycin type with an acylating agent.

DECEMBER 3.

59029. Shri Ram Institute for Industrial Research. Improvements in or relating to the treatment of textile and like materials with liquids. By passage of the textile materials through a column of solid discrete particles fluidised by impregnating liquid.

59030. Shri Ram Institute for Industrial Research. Improvements in or relating to the application of fluidised beds for the treatment of textile and like materials. Passing the textile material through a fluidised bed wherein fluids are impinged on the textile material substantially at right angles to the material.

59031. Shri Ram Institute for Industrial Research. Improvements in or relating to the treatment of textiles or like material in fluidised beds. Passing the textile successively through a fluid medium, a molten metal bath and a fluidised bed of solid discrete particles.

59032. Shri Ram Institute for Industrial Research. Improvements in or relating to a means for guiding textile and like materials through the fluidised bed. Providing fine jets of fluidising medium between the shaft of the guide roller and the body of the bearing on the side facing the fluidised bed material.

59033. Shri Ram Institute for Industrial Research. An improved means for threading textile or like materials through the fluidised bed of solid discrete particles. Threading on pair of endless chains moving into and out of fluidized bed column.

59034. Void.

59035. Void.

59036. N. V. De Bataafsche Petroleum Maatschappij. A process for incorporating water-soluble solids in lubricating greases. (December 5, 1955.) By emulsifying aqueous solution of the solid in a lubricating oil to form an emulsion dehydrating it and mixing it with a lubricating grease.

59037. Montecatini Societa Generale Per L'Industria Mineraria E. Chimica. Continuous and quick process for scouring, desizing and bleaching cotton with chemical oxidants and vaporization. Cotton is impregnated with a solution having desizing purging and oxidant solution.

59038. J. W. Roberts Limited. Improvements relating to the production of heat and sound-insulating coatings on walls and other surfaces. (December 7, 1955.) Asbestos or other fibre is sprayed on to the surface and the coating pressed with a tool having irregularly spaced blunt projections.

59039. The Mond Nickel Company Limited. Improvements relating to methods of and apparatus for producing metal strip from metal powder. (December 15, 1955.) Metal powder is so fed to the compacting rolls such that the amount delivered to them to form the centre of strip is greater than at the sides.

59040. Pending.

59041. Ciba Limited. Manufacture of new piperazo-pyridazine compounds. By reacting a 3:4-dihalogen pyridazine with a secondary-tertiary ethylene diamine.

59042. Union Carbide Corporation. Copolymers of ethylene and alpha unsaturated olefins. (October 15, 1956.) Reacting a mixture of ethylene and between 0.2/and 3 per cent. by volume thereof of α -unsaturated olefin at pressure between 20,000 and 40,000 lbs/sq. inch and at a temperature between 160° and 350° C.

59043. National Research Development Corporation. Pesticidal coating compositions. (December 7, 1955.) Coating composition comprising a synthetic resin, an organic solvent, a pesticidal substance and an etherified amino-plast resin.

59044. Metropolitan-Vickers Electrical Company Limited. Improvements relating to electron optical apparatus. (December 12, 1955.) Comprising means for deflecting the beam of electrons in two directions perpendicular to each other.

DECEMBER 4.

59045. American Cyanamid Company. Preparation of tetracyclineurea compounds. By reacting urea with tetracycline or acid or basic salts thereof.

59046. American Cyanamid Company. Recovery of tetracycline from an acidified fermentation mash. By adjusting the calcium ion content and adding one or more quaternary ammonium compounds to the fermentation mash.

59047. The Dow Chemical Company. Non-corrosive compositions comprising polymerized olefins prepared with certain catalytic metal compounds. Comprising a polymerized olefinic material prepared with a halogen containing catalyst and a corrosion-inhibiting quantity of a basic inorganic compound of group II metal of Periodic system.

59048. Food Machinery And Chemical Corporation. Production of potassium persulfate. Establishing a body of aqueous sulfuric acid solution, introducing ammonium persulfate into the top of the body and potassium sulfate into the bottom of the body and withdrawing solid potassium persulfate from the bottom.

59049. Sentinel (Shrewsbury) Limited and L. F. Hamblin. Improvements relating to trailer vehicles. (December 7, 1955.) All the wheels are adjustable angularly about horizontal axis with respect to the platform.

59050. Sentinel (Shrewsbury) Limited and L. F. Hamblin. Improvements relating to the steering of trailer vehicles. (December 7, 1955.) Steerable front wheels carried on separate pivot pins and steered by the towing member of the trailer.

59051. D. Napier & Son Limited. Reaction jet propulsion systems for multi-engine aircraft. (December 14, 1955.) Automatic control mechanism

is provided interconnecting isolating valves and nozzle adjusting devices which operated in the event of unbalance in the gas outputs of the engine.

59052. Heinrich Koppers Gesellschaft mit beschränkter Haftung & Badische Anilin- & Sodafabrik Aktiengesellschaft. Arrangement for purifying crude benzene. A zone of increased carbon monoxide and steam concentration is formed in the reactor wherein carbon-de-oxide and hydrogen are formed. Hydrogen thus formed purifies the crude benzene.

59053. Void.

59054. Kollmar and Jourdan, Aktiengesellschaft. Improvements in or relating to elastic link straps. (September 28, 1956.) An elastic link strap comprising a plurality of parallel tubular members with at least one spring within each, and connecting members enclosing the ends of each tubular member.

59055. Void.

59056. Montecatini Societa Generale Per L'Industria Mineraria E Chimica. High melting ethylene polymers. (December 3, 1956.) Polymerising in presence of solid product obtained by contacting a solid microcrystalline halogen compound of group IVa, Va or VIa of Periodic Table with organometallic compound of a metal of group II or III.

DECEMBER 5.

59057. Universal Oil Products Company. Process for refining hydrocarbon oils. Subjecting gasoline hydrocarbon oil to hydrogenation and separating treatments.

59058. Universal Oil Products Company. Process for the treatment of waste waters from hydrocarbon processing. Water stream with volatile contaminants is contacted with a stream of stripping gas and thereafter treated with a hydrocarbon stream.

59059. Soc.p.Az. Faesite. A process and apparatus for continuously injecting liquids into woodboards, wood fibre panels and similar hardboard sheets. Passing between two rotating cylinders pressed against each other one coated with resilient material having recesses filled with liquid to be injected.

59060. The Singer Manufacturing Company. Stitch-length adjusting mechanism for sewing machines. Pivotal movement of stitch-length adjusting lever is limited to co-operate with inclined surfaces of the depression in cam-like fashion.

59061. D. Napier & Son Limited. Control systems for multi-engine aircraft employing reaction jets. (December 14, 1955.) Device sensitive to a difference in speeds of engines automatically isolate from the common duct the engine whose speed falls below a pre-determined extent.

59062. The British United Shoe Machinery Company Limited. Improvements in or relating to machines for vulcanising soles to shoe bottoms. (December 2, 1955.) Comprising a carrier for a foot on which a shoe is supported, the carrier occupying raised position relative to moulds, the foot is mounted on a carriage slidable along the carrier when the latter is in raised position, to carry the foot from the moulds and there being means by which foot can be turned into upwardly extending position for facilitating removal of a shoe from it or placing a shoe thereon.

59063. Daimler-Benz Aktiengesellschaft. Improvements relating to synchromesh units. (September 20, 1956.) In which striking ring carrying locking teeth is slidable axially on one of the rotating members to be coupled to bring such ring into frictional contact with other of members to be coupled, one or more springs acting in axial direction are distributed over the periphery and are operative to urge the striking ring out of frictional contact.

59064. Societe D'electro-Chimie, D'electro-Metallurgie Et Des Acieries Electriques D'Ugine. Process for removing iron from titaniferous materials. (June 12, 1956.) By carrying out a partial reduction of the titaniferous material in the solid state at a temp. of 900-1250° C. and thereafter melting the product obtained.

59065. Societe D'Electro-Chimie, D'Electro-Metallurgie Et Des Acieries Electriques D'Ugine. Improvements in or relating to the production of metals. (June 20, 1956.) By reacting a compound of the desired metal with a fused bath of an alkali or alkaline earth metal halide having dissolved therein an alkali metal, alkaline earth metal or aluminum.

59066. Societe D'Electro-Chimie, D'Electro-Metallurgie Et Des Acieries Electriques D'Ugine. Improvements in or relating to the production of ingots. (July 2, 1956.) Comprises heating a slag which is inert towards the metal to be cast, rapidly pouring the hot slag into the ingot mould and thereafter casting the metal into the slag contained in the mould.

59067. Societe D'Electro-Chimie, D'Electro-Metallurgie Et Des Acieries Electriques D'Ugine. Improvements in or relating to the production of ingots. (July 4, 1956.) [Addition to No. 59066.] The composition of the slag in such that it has a desulphurising action and at the temperature of solidification of the metal, a low viscosity and a high interfacial tension with regard to metal is produced, and a reducing agent added to metal before casting.

59068. Societe D'Electro-Chimie, D'Electro-Metallurgie Et Des Acieries Electriques D'Ugine. Improvements in or relating to the production of ingots. (July 19, 1956.) Casting metal into an ingot mould surmounted by a head through a liquid slag contained in the mould, the slag being liquid at the melting point of the metal.

59069. Societe D'Electro-Chimie, D'Electro-Metallurgie Et Des Acieries Electriques D'Ugine. Improvements in or relating to the production of ingots. (July 20, 1956.) Rate of casting adjusted according to increase or decrease of conductivity.

DECEMBER 6.

59070. Void.

59071. Bonas Bros. Limited. Improvements in or relating to the weaving of fabrics having a beaded edge. (January 5, 1956.) The bead forming elements are shed in a sequence distant from the warp ends for the body fabric.

59072. SKF Kugellagerfabriken Gesellschaft mit beschränkter Haftung. Drafting Mechanism for Textile Spinning Frames. The operating lever which is pivotally mounted on the weighting arm is pivotally connected with at least one auxiliary lever which, on turning of the operative lever in the direction towards the top rollers is moved into operative position whereby this auxiliary lever bears against a stationary member.

59073. Societe Des Usines Chimiques Rhone-Poulenc. Improvements in or relating to iminodibenzyl derivatives and processes for their production. (September 18, 1956.) An iminodibenzyl base is treated with a compound of a piperazine grouping to produce an iminodibenzyl derivative.

59074. Societe Des Usines Chimiques Rhone-Poulenc. Improvements in or relating to iminodibenzyl compounds and processes for their preparation. (September 27, 1956.) An iminodibenzyl base is treated with a compound of a piperazine grouping to produce an iminodibenzyl derivatives.

59075. C. F. Olsson. A method of securing a sleeve to a member fitting in the sleeve and joints effected by such method. Pipe or pipes are inserted into the sleeve and means for deforming the sleeve permanently by tensile stress.

59076. General Aniline & Film Corporation. A process for preparing a sheet-like product from inorganic stock material. Incorporating in inorganic stock material minor amount of water-soluble vinyl pyrrolidone-containing polymeric substance.

59077. Tesla, narodni podnik. Paper product, more particularly loudspeaker diaphragm. Synthetic fibres are admixed in to cellulose sulphite or sulphate and pressed the paper in a humid condition.

59078. General Electric Company. Electrical vapor detector. Comprising a housing containing an emitter electrode supported on a core, an ion emitting material containing an alkali metal glass interposed between the core and

emitter electrode and means for heating the emitter electrode and the ion emitting material.

59079. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to methods of reducing unsaturated compounds with an alkaline or alkaline-earth metal in liquid ammonia. Wherein a solution of the compound is caused to react with an alkaline or alkaline earth metal in liquid ammonia, the organo-metal product obtained being decomposed.

59080. N. V. Philips' Gloeilampenfabrieken. Improvements in or relating to luminescent screens comprising associated photo-sensitive and electroluminescent elements. Viewed in a direction perpendicular to luminescent screen, each of the electrodes defines a line pattern, the lines of one pattern alternating with and not intersecting the lines of the other pattern.

59081. P. D. Ladouce. Holder, feeder and dispenser for soluble products. A device comprising a housing adapted to contain a cake or bar of liquid-soluble material slidably movable therein, with a discharge end and retaining means.

59082. Slazengers Limited. Improvements in or relating to the production of markings on the coverings of play-balls. (December 13, 1955.) Void after publication. Deep penetration of the marking ink produced on fibrous material ball coverings by silk-screening printing process.

DECEMBER 7.

59083. Void.

59084. Aluminium Laboratories Limited. Condenser for gaseous fluids which condense to the solid state. Comprising a vertical shell with a plurality of abutting circular equal radius segments each greater than a semi-circle and having a center spacing equal to radius multiplied by $\sqrt{2}$.

59085. V. H. Lodaya, V. C. Ajmera and S. A. Ajmera. Improvements in or relating to bracelets. Two rows of hollow links are arranged in staggered relationship and spring plates are inserted within the link.

59086. SPIRAX-SARCO Limited. Improvements in or relating to valves for controlling the flow of fluid. Of the kind comprising a piston which is housed and is axially displaceable within the valve body so as to open and/or close one or more parts.

59087. Sandoz A. G. Process for the Preparation of New Phenothiazine Derivatives. Condensing a phenothiazine ether derivative with heterocyclic amine substituted in α - position to the nitrogen atom by a β -halogen ethyl group.

59088. Council of Scientific and Industrial Research. Production of delta 3-carene Polymers. By heating solution of 3-carene with catalyst like anhydrous aluminium chloride or boron trifluoride.

DECEMBER 10.

59089. G. W. Ruparel. Improved tower bolt. A half round channel, parallel sides extend and are bent at right angles to form a flange to extend downwards and bent at right angle to form outwardly projecting flange which is again bent at right angle and doubled up to form a curved lining to form a half round channel.

59090. G. A. Shah and K. P. Shah. Improved tractor. Two wheeled tractor adapted to be connected to cultivating implements and mountable with two detachable wheels to support tractor with three wheels at a time and power from engine to wheels transmitted in three stages.

59091. British Telecommunications Research Limited. Improvements in or relating to registering equipment of the magnetic drum type. (December 14, 1955.) In which reading and writing heads and control equipment provided for causing information recorded on main track to be copied to auxiliary track whereupon record in auxiliary track is subjected to processing operation if necessary and control equipment causing processed version of information to be written on to main track to replace the initial version thereon.

59092. Bristol Aero-Engines Limited. Improvements in or relating to axial flow compressors. (December 23, 1955.) Passage means communicating the chambers constituted of the blade-carrying discs and the flanges near their rims with the working fluid passage of the compressor.

59093. Monsanto Chemical Company. Process of producing silica aqua-sols. Admixing an acidix silica hydro-organosol with an alkaline alkali metal compound.

59094. Pending.

59095. Casablancas High Draft Company Limited. Improvements in textile fibre drafting apparatus. (January 4, 1956.) One of the tensor members has a broad flat band support surface with a trailing edge.

59096. Ciba Limited. New polymerizable amides of α : β -unsaturated carboxylic acids and process for their manufacture. Amide of an α : β -unsaturated carboxylic acid containing at least one hydrogen atom bound to the amide nitrogen is reacted with chloral.

DECEMBER 11.

59097. S. L. Mukherji and Albert David Ltd. Processes for manufacture of sulphonamide derivatives. N'-n-butyl-N³-p-toluene-sulphonyl drethane is prepared by reacting p-toulene-sulphonamide with either ethyl chloroformate or n-butyl isocyanate.

59098. Void.

59099. R. Barth. Demagnetising apparatus. In which a passage is formed by two coils and in this passage the piece to be demagnetised is introduced, the coils having fields produced by alternating and direct currents respectively.

59100. Johannes Erhard H. Waldenmaier Erben Suddesche Armaturen-fabrik. Diaphragm for check valve and check valve including such diaphragm. Consisting of a diaphragm of rubber or like material having one or more openings and its lower part being provided with a tongue which is more flexible than the remaining part of the diaphragm.

59101. Food Machinery And Chemical Corporation. Fluid conveying apparatus. A device carried by hose carrying boom independent of connection for manoeuvring other end of the hose to a position adjacent other containers.

59102. Ethyl Corporation. Process for manufacturing tetraalkyllead compounds. (December 6, 1956.) Reacting a lead organoacid salt with a non-lead alkylmetal compound.

59103. Societe Anonyme Des Manufactures Des Glaces Et Produits Chimiques De Saint-Gobain, Chauny & Cirey. Improvements in or relating to a process for the manufacture of polysulphone resins. Polymerising hydrocarbons of the ethylene series with sulphur dioxide under the action of gamma rays.

59104. Void.

DECEMBER 12.

59105. Void.

59106. Void.

59107. Void.

59108. Carl Freudenberg Kommanditgesellschaft auf Aktien. Improvements in or relating to process for the production of unwoven fibre structures. Process for plastic impregnated fibres in the proportion of 70—20 parts by weight of binding agent to about 30—80 by weight of fibres, compressed and solidified.

59109. J. R. Geigy A. G. Agents and processes for influencing the growth of plants. Comprising as active ingredient a compound consisting of heterocyclic ring fused to a benzene ring, in combination with carrier.

59110. Solco Basel A. G. Respiration stimulating active composition for therapeutic purposes and a process of making same. Subjecting blood to complete deproteination freeing the solution from deproteinating agents, concentrating and filtering.

59111. M. R. Thapar. Closures for bottles and the like. (December 16, 1955.) Skirt provided with an annular series of recesses which do not penetrate the outer surface of the skirt and into an inclined surface of the skirt.

59112. General Industries. Means for fitting a false ceiling. Consisting of end rails or like channel section secured to the walls of the room, intermediate rails suspended from roof by hangers.

59113. Void.

59114. F. Hoffmann-La Roche & Co. Aktiengesellschaft. D1-emetine and process for the preparation thereof. Reducing the salt of 2[(6':7'-dimethoxy-1',2', 3', 4'-tetrahydro-isoquinolyl-(1))-methyl]-3-9:10-dimethyl-1, 2, 3, 4, 6, 7-hexahydro-benzo (a) quinolizinium.

59115. Void.

DECEMBER 13.

59116. R. V. Bhingarkar. A composition, comprising (1) a powder and (2) a lotion, for preventing puncture in rubber tubes. Comprises of a powder consisting of mica, linseed, red clay, sharmi seeds, talimkhana seeds, gammaxene, and a lotion consisting of water gum crystals and PHENYL.

59117. Pending.

59118. Aktiebolaget Hassle. Method preparing tablets and tablets prepared thereby. By mixing a powder of a soluble material with a powder of insoluble material and compressing the same to form tablets.

59119. H. Wang. Improvement in or relating to packing machines. Means are provided for keeping the bag foil in opened condition by causing friction between the means and the bag foil and to keep the bag foil floating.

59120. Redman Process International, Inc. Apparatus for the treatment of textile fabric to minimize shrinkage. Moving the fabric lengthwise in one plane through a treatment zone and applying a wave-like motion at the same time to the fabric in the general plane thereof.

59121. Shri Dhar. Process for the manufacture of cadmium sulphide. Metallic cadmium is converted into cadmium oxide by using atmospheric oxygen. The cadmium oxide is dissolved in an acid and a sulphide added.

DECEMBER 14.

59122. K. Newton. Improved treadling and transmission mechanism for jacquard foot treadle looms for the manufacture of coir and jute mattings. Consisting of two vertical metal shafts attached to the griffe of the jacquards mechanism at the upper extremity and to a foot treadle mounted on a metal frame at the lower extremity.

59123. S. K. Chatterjee. A novel indoor-game for running a race round the world by means of token plane. Comprising two world maps with airports marked therein token planes indicator and navigating instrument.

59124. Casablancas High Draft Company Limited. An improved storage device for the replacement bobbins of speed and ring spinning frames. Bobbin holders spaced along carrier rail arranged lengthwise of the creel hold bobbins releasably.

59125. Ciba Limited. Process for the optical brightening of polyester fibers. By treating fibers with a brightening agent which is free from water-solubilising groups and contains at least one heterocyclic ring condensed with a benzene ring.

59126. Ciba Limited. Process for the optical brightening of synthetic fibers. Wherein the fibre is impregnated with an aqueous preparation containing a brightening agent not being fixed and also with an artificial resin.

59127. Void.

59128. Firma Ernst Jacobi. Cleaning equipment or apparatus for textile machinery or the like. Track for the blower or carriages is constructed in the form of monorail track.

DECEMBER 15.

59129. Societe Des Usines Chimiques Rhone-Poulenc. New indole derivatives and process for their preparation. By reducing compounds of type 2-(2-pyridyl)-3-ethylindole methobromide having hydrogen, halogen alkyl or aralkyl substituents for nucleus.

59130. PERFOGIT Societa per Azioni. Process for recovering monomer fractions in the condensation of amino acids and other monomeric products. By passing vapours loaded with monomer from reaction chamber into regeneration space so as to melt the same while passing through tortuous paths.

59131. PERFOGIT Societa per Azioni. Process for making synthetic linear polyamides. Adding ammonium salt of fatty acid with more than 14 carbon atoms to suspension or solution of monomers and polymerising the same.

59132. The Dow Chemical Company. A die for the extrusion of organic thermoplastic sheet. Comprises a pair of land providing die lips which form an orifice.

59133. Karamchand Premchand (Private) Limited. Process of manufacture of vitamin B-12. Wherein culture medium contains crude lactic acid liquor prepared from jaggery or molasses as essential ingredient.

59134. Intertype Corporation. Centering and quadding mechanism for photocomposing machines. Comprising a line follower member urging row of character bearing elements towards endwall, a first train of drive elements interconnecting following member and film holder and a second train of drive elements adapted to interconnect the follower member and film holder and means to disconnect first train and to connect second train of elements and *vice versa*.

59135. Menley & James Limited. Improvements in or relating to the manufacture of 5-nitro-furan derivatives. (January 3, 1956.) Heating 5-nitro-2-furfuraldehyde and semicarbazide.

59136. Imperial Chemical Industries Limited. New Heterocyclic Compounds. (January 16, 1956). Void after publication. Subjecting 3-methyl or 4-methylcycloheptanone to Bucherer hydantoin synthesis.

59137. N. B. Das Gupta. Smoke absorbing chamber for *chulas*, oven or fire places. One or more layers of absorptive materials are arranged on perforated covers where absorption is effected by making the smoke traverse through the layer or layers.

DECEMBER 17.

59138. "METAPIC" S. A., Reed adjustment device for weaving looms. Part adjacent the lower edge of the reed liable to displacement in height, the upper supporting element taking up correlated displacement.

59139. "METAPIC" S. A., Holding Luxembourgeoise. Improved clutching means for weaving looms. Elastic delay element introduced between the driving and driven elements.

59140. "METAPIC" S. A., Holding Luxembourgeoise. Adjusting and safety means for the hammer of the bobbin changer in weaving looms. Hammer is connected with an articulate toggle joint.

59141. "METAPIC" S. A., Holding Luxembourgeoise. Adjustment aids for weaving looms. Indicating scales disposed between movable parts requiring adjustment and other adjacent parts.

59142. "METAPIC" S. A., Holding Luxembourgeoise. Double acting buffer for weaving looms. Mobile stop elements adjusted in front and back face of a hollow body and mounted on the same spindle.

59143. "METAPIC" S. A., Holding Luxembourgeoise. Improved mounting means for the warp stop motion device in weaving looms. Warp stop motion device mounted on pivoting supports.

59144. "METAPIC" S. A., Holding Luxembourgeoise. Adjustable unwinding means for the warp beam in weaving looms. A sensing element riding on the periphery of warp beam and an arrangement simultaneously controlling the back rest and the warp beam driving means.

59145. "METAPIC" S. A., Holding Luxembourgeoise. Weaving method in looms employing heddle frames. Some of the heddle frames move with different amplitude as compared with other heddle frames within the same loom.

59146. "METAPIC" S. A., Holding Luxembourgeoise. Heddle frame return motion device for broad weaving looms. Each heddle frame suspended from at least two spiral springs symmetrically disposed.

59147. "METAPIC" S. A., Holding Luxembourgeoise. Improved tongue for shuttle boxes in weaving looms. Tongue hinged on a pivot disposed on a perpendicular to such portion of the tongue as will be first met by the shuttle.

59148. "METAPIC" S. A., Holding Luxembourgeoise. Stopping means for the picker stick in weaving looms. Plurality of elements made of a pliant material having small spaces between them.

59149. Void.

59150. Void.

59151. Pending.

59154. Chas. Pfizer & Co. Inc. Process for the preparation of an 8, 9-hydroxylated-3, 4-dihydro-1(2)-anthracenone. Preparation of a few cyclic ketones reduction with hydrogen in the presence of a catalyst.

59153. British Telecommunications Research Limited. Improvements in or relating to electrical signalling systems particularly telephone or like systems. (December 22, 1955.) [Addition to No. 55859.] Employing a high speed register device of the magnetic drum type.

59154. Chas. Pfizer & Co. Inc. Process for the preparation of an 8, 9-hydroxylated-3, 4-dihydro-1(2)-anthracenone. Preparation of a few cyclic ketones reduction with hydrogen in the presence of a catalyst.

59155. Imperial Chemical Industries Limited. Veterinary Compositions containing 4-Bromo-4'-Nitrocarbanilide. (January 4, 1956). Void after publication. Brominating 4-nitrocarbanilide or reacting p-bromophenylurea and p-nitroaniline.

59156. Void.

59157. The British Drug Houses Limited. Improvements in or relating to esters of diethylphenylacetic acid. (January 4, 1956.) Diethylphenyl acetic acid is converted into the corresponding acid halide and the resulting halide is condensed with a dialkylaminoethoxy ethyl alcohol.

59158. Tuboplast Societe Anonyme. Method and apparatus for securing a rigid end piece upon one end of a thermoplastic tubular element and tubular containers thus obtained. Introducing edges of tubular body in annular groove of end plate and heating the same to melt the thermoplastic body to form beaded edge therein on cooling.

59159. Void.

59160. R. Albrecht. Towing and coupling rod for vehicles. Locking means on the outward ends of outer tubular members for resilient automatic locking engagement with external annular grooves in all solid rod parts.

59161. British Telecommunications Research Limited. Improvements in and relating to electron discharge valve amplifiers. (January 13, 1956.) Of the cathode follower type including a first valve and a second valve, an impedance connected in the cathode lead of the first valve, an output terminal connected to said impedance, the anode circuit of the first valve including a second impedance and its anode is connected to the control electrode of the second valve, the anode of the second valve is connected to the output terminal.

DECEMBER 18.

59162. Casablancas High Draft Company Limited. Improvements in or relating to textile fibre drafting apparatus. (May 2, 1956.) Top rollers centrally located by guide means provided on an underlying guide arm extending transversely to the roller axis and releasably anchored at the rear end to a fixed part of the apparatus.

59163. Casablancas High Draft Company Limited. Improvements in dual boss top rollers for textile fibre drafting mechanisms. (June 22, 1956.) Tubular arbor carries rotatably the intermediate sleeve member on which the bosses are locked against relative rotation.

59164. Metallurgical Chemists Limited. Apparatus for distributing dressings on vegetation. (December 19, 1955.) Each nozzle contains an electrode which is charged with unipolar electric potential.

59165. United States Steel Corporation. Apparatus for measuring the length of strip. Means for measuring the length of strip passing the first of two spaced prints and means for measuring the difference between the amounts of strip passing the first and second points.

59166. American Home Products Corporation. Preparation of fatty acid amides and derivatives thereof. Heating alkanol-amino compound with halogen-substituted fatty acid, wherein alkanol radical has 2-4 carbon atoms.

59167. British Insulated Callender's Cables Limited. Improvements relating to junction boxes for electric cables. (December 20, 1955.) Outer peripheral surface of the inner clamping member and the inner surface of a one-piece cylindrical casing has complementary profile, permitting in different angular settings, the casing to be passed over the inner clamping member or to form an abutment for the inner clamping member.

59168. British Insulated Callender's Cables Limited. Improvements in or relating to electric capacitors. (December 23, 1955.) Rectangular prism shaped capacitor units spaced apart and so placed that the lower face of each prism overlaps the upper face of the prism below it.

59169. Pending.

59170. Esso Research and Engineering Company. Method of removing contaminants from petroleum fractions of which 50 to 100 per cent. by volume boil above 900° F. By contacting the petroleum fraction at 750°—825° F. with a sulfur-insensitive hydrogenation catalyst in the presence of hydrogen.

59171. The Mining Engineering Company Limited. Improvements in or relating to roof supports for mine workings. Comprising two or more superimposed resilient or deformable members of circular cross-section which are in contact with each other.

59172. Montecatini Societa Generale Per L'Industria Mineraria E Chimica, and K. Ziegler. High molecular weight copolymer of olefins and process for their preparation. (December 17, 1956.) Subjecting a mixture of olefins to co-polymerisation in the presence of a metallic catalyst.

59173. Metallgesellschaft A. G. Method and apparatus for treating materials such as ores and the like. Hot gases are premixed with return gas, water vapour in such amounts that the mixture so obtained ensures a desired treatment of the charge in addition to the heating effect.

59174. Metallgesellschaft A. G. Cooling of hot sintered materials. Comprising transporting the material to rest upon a continuously moving band which is air pervious and the supporting surface area of the band and the air opening area in the band is greater than the plan area of the band where the material is supported and cooled air is forced through.

59175. Metallgesellschaft A. G. Process of heat treatment of material preferably pellets of ores. Mixing solid fuel with materials to be heat treated and burning the same to provide a part of the heat required for the process.

59176. Metallgesellschaft A. G. A process of agglomerating a mixture of granular ores. Charge material is moistened with water and thoroughly mixed, then processed in a rolling granulator to form pellets.

59177. Metallgesellschaft A. G. Method of roasting or roasting and sintering alkaline earth carbonates and the like materials. Raw material mixed with fuel charged to the lower stratum on the sintering band, and after passing the sintering band through the furnace again mixed with fuel and charged to the upper stratum of the charge on the band.

59178. Metallgesellschaft A. G. Method of driving and roasting or roasting and sintering. Material are charged on the grate in two layers, the lower layer consists of raw material to be treated without admixture of fuel and the uppermost layer at least partially from return material.

DECEMBER 19.

59179. M. E. Rouaux. Furnace apparatus for the reduction of metallic ores. (December 12, 1956.) A rotatable furnace located in an inclined position so that furnace can be operated in full, the furnace having at its end, a portion which can be arranged so as to open directly into a chimney.

59180. P. Guglielmetti. Toolholder, particularly for lathes, planers and the like. Supporting piece provided with sideways, for being fixed to carriage or headstock of the machine tool and a piece for carrying tool mounted in a slidably adjustable and interchangeable manner.

59181. Standard Pharmaceutical Works Ltd. Improved process and nutrient medium for producing penicillin. [Addition to No. 52744.] Wherein the nutrient medium contains one or more precursors capable of furnishing phenoxy methyl radical during biosynthesis or salt thereof.

59182. American-Marietta Company. Hydraulic cement additives and cement compositions containing same. Comprises a carboxylic acid or salt or ester thereof, a chloride and a non-carboxylic amine.

59183. Void.

59184. The British Thomson-Houston Company Limited. Improvements in electric switches or circuit breakers. In which half wave rectifying means are connected to shunt current from break between contacts during alternate half-cycles to the alternating current on opening of switch or circuit breaker, means being provided for introducing a break in series with said rectifying means during conducting half-cycles of rectifying means in open condition of switch or circuit breaker.

59185. D. P. Asar. Improvements in neck ties. A knot is performed independently from a separate piece of material than the front piece and upper end of front piece is held within the knot.

DECEMBER 20.

59186. The General Electric Company Limited. Improvements in or relating to metal vapour electric arc converters. (December 30, 1955.) Main anode disposed in close proximity to the cathode so that in operation said anode is situated in the dark space of the discharge.

59187. Ruhrchemie Aktiengesellschaft. Octahalogenomethylene-tetrahydrophthalanes and a process for the production thereof. Reacting 1, 3-dichloro-4, 5, 6, 7, 10, 10-hexahalogeno-4, 7-methylene-4, 7, 8, 9-tetrahydrophthalane with liquid hydrogen fluoride.

59188. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Process for the manufacture of carotenoids. Condensing metal organic derivative of 3, 8-dimethyl-3, 5, 7-decatrien-1, 9-diyne at both ends with β -dehydro- C_{11} -aldehyde hydrolyzing the condensation product, subjecting the resulting diol compound to elimination of two mols of water and allyl rearrangement, partially hydrogenating triple bonds and isomerizing the di-cis compound.

59189. W. Dobermann. A staircase wholly or partly winding and consisting of prefabricated separate parts. Having stringers, treads and risers in which stringers run parallel and treads are trapezoidal shape.

59190. I. Uozumi, A. P. M. Nair, and I. Akasakka. A locking means for preventing the loosening of a nut on a bolt. Upper cylindrical thin part of nut is bent to fit in longitudinal semi-circular grooves on upper part of bolt adjacent shallow threads.

DECEMBER 21.

59191. Metallgesellschaft Aktiengesellschaft. Production of lead from materials containing lead sulfide. Sintering lead sulphide containing material in admixture with fly ash and recycled sintered material and heating product to form metallic lead.

59122. D. P. Asar. Improvements in or relating to clamps for Venetian blinds. Clamp for the upper rail comprising a flat or slightly curved body with a punched hole for the cord to pass, the ends of the body having prongs to engage the ladder webs, while the clamp for the lower rail is also made flat or slightly curved shape and has a key hole shaped slot for the passage of the cord and has prongs on its either end.

DECEMBER 22.

59193. Void.

59194. Void.

59195. Union Carbide Corporation. A method of and apparatus for melt-extruding a thermoplastic composition as well as the film resulting therefrom. Means provided in the die to homogenize the plastic composition before it is extruded through an annular orifice.

DECEMBER 24.

59196. C. R. Ross. Block wall construction. Two parallel walls formed of blocks in staggered relationship and with interconnecting means to hold the walls together, the blocks having cylindrical cavities and locking pins.

59197. SKF Kugellagerfabriken Gesellschaft mit beschränkter Haftung. Roller with two fixed shells in drafting mechanism of textile spinning frames. The shell of the roller being restrained against rotation on the shaft by a driving pin fixedly mounted on the shaft and the shell being also movable in the direction of the axis of that shaft.

59198. Dunlop Rubber Company Limited. Reinforced belts or sheets. (December 23, 1955.) Polymeric composition reinforced with dualdrawn synthetic organic fibre-forming polymer sheet.

59199. Titan Co. A/S. Improved method for reducing metal oxide. Reducing by solid carbonaceous agents, introducing combustible gas and oxygen containing gas at spaced intervals.

59200. Standard Telephones and Cables Limited. Crossbar multiswitch. Includes three sets of bars, bars in same set being parallel to one another while bars from two sets are perpendicular to one another.

59201. Huttenwerk Rheinhausen Aktiengesellschaft. Process for the manufacture of slags rich in alumina from metallurgical smelting processes. Consisting in substituting lime-coke for part at least of the ordinary coke normally used in the fuel batches of the charge and proportionately reducing the content of the lime in the ore batches of the charge.

59202. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Stabilized vitamin D composition and process for the manufacture thereof. Comprising intimate admixture of at least one vitamin of vitamin D group, butylated hydroxyanisole, 2,6-di-t-butyl-4-methylphenol and ethylenediamine tetraacetic acid or an alkali metal salt thereof.

DECEMBER 26.

59203. Inventa A. G. für Forschung und Patentverwertung. Process and apparatus for the treatment of solid goods with gaseous agents. Distributing the solid materials in a reaction vessel and introducing therein a counter current of positively directed flow of reacting gas.

59204. Imperial Chemical Industries Limited. Process of preparing gibberellic acid. (December 30, 1955.) Introducing carbon dioxide in aerated nutrient solution for cultivation of strain *Gibberella fujikuroi*.

59205. Imperial Chemical Industries Limited. Ethylene polymerisation. (January 16, 1956.) Subjecting gaseous ethylene to pressure greater than 500 atoms and temperature less than 150° C. in presence of free radical producing ethylene polymerisation catalyst and chain transfer agent.

59206. E. K. Cole Limited. A television receiver provided with an aerial isolating condenser assembly. (January 7, 1956.) A co-axial type aerial socket is mounted on an isolating condenser assembly wherein the condenser comprises two metal plates between which is clamped an insulating wafer of which both surfaces are metal coated, the centre connector of the socket extending through the clearance openings in metal plates and wafer and outer conductive sleeve connected to one metal plates.

59207. E. K. Cole Limited. Improvements in or relating to television receivers. (January 10, 1956.) Of the type employing line gated A.G.C. and in which a so-called efficiency diode is connected in series with the H. T. supply to the anode of the line time base output valve.

59208. The General Electric Company Limited. Improvements in or relating to dynamo electric machines. (January 2, 1956.) Conductors of the coils divided into a plurality of superposed strips within the slots and the strips are divided into at least two groups.

59209. The General Electric Company Limited. Improvements in or relating to electric discharge lamps. (January 19, 1956.) Lamp with elongated tubular discharge envelope sandwiched between two plates of transparent heat insulating material.

59210. Power Jets (Research & Development) Limited. Jet propulsion plant. (January 5, 1956.) Turbine has two contra-rotating rotors each connected of contra-rotating rotors of a compressor, and a source of high velocity gas to drive the turbine.

59211. R. Barth. Magnetic test apparatus. Having a cover of transparent material light arranged within the cover which illuminates the test sample and upper portion of apparatus carrying pole pieces on which test piece is placed, and observation of formation of whiskers is magnified optically and/or filter beds employed with the bonnet for observation.

59212. R. Barth. Magnetic test apparatus for metals. Including a master switch which is released after termination of the test by a reversing switch whereby switch of demagnetization circuit is switched on, the demagnetization circuit being disconnected either automatically by contact link through adjustable time switch or through controlled discharge of a condenser.

59213. Sylvania Electric Products Inc. Orthophosphate for use in fluorescent electric discharge lamps. Wherein the phosphor has for each mole of phosphorus pentoxide, between 2.5 and 2.98 moles of zinc oxide plus strontium oxide and about 0.4 to 0.1 mole of stannous oxide.

59214. Hazlett Strip-Casting Corporation. Apparatus and process for casting metal strips. Comprising upper and lower endless flexible metal bands, means for supporting the bands for movement along spaced parallel rectilinear paths which are inclined to the horizontal.

59215. Metallgesellschaft Aktiengesellschaft. Apparatus for cooling hot granular materials. Comprises a rotatable cooling housing having grate inclined towards the axis of the housing and a rotatable cooling chamber therewith.

59216. V. K. G. Menon and P. Jayaramdas. Improved type of breather for transformers. Point of entry of air into the breather pipe is located on the container of the drying medium.

59217. H. J. Elliott. The improvements in or related to the separation of sulphur from sulphur bearing bodies or mixtures. Heating the comminuted ore in water heated under pressure and cooling the mixture.

59218. N. V. Philips Gloeilampenfabrieken. Improvements in or relating to methods of producing cubic ferro-magnetic ferrites and magnet cores made

from these ferrites. In the reaction mixture for production of ferrite, a slight amount of manganese and/or zinc is replaced by an amount of monovalent copper.

59219. Void.

DECEMBER 27.

59220. N. V. De Bataafsche Petroleum Maatschappij. Process for preparing novel esters of a beta-phosphato-alpha, beta-olefinically unsaturated monocarboxylic acid, esters so prepared and compositions containing them. Esters are prepared from an aliphatic alcohol containing at least one other functional group involving oxygen and a beta-phosphato-alpha, beta-olefinically unsaturated monocarboxylic acid.

59221. Imperial Chemical Industries Limited. Improved process for the oxidation of benzanthrene. (January 4, 1956). Treating benzanthrene with aqueous nitric acid.

59222. Stamicarbon N. V. Process of preparing W-amino-alkane-nitriles. By passing the lactam in vapour phase together with ammonia at a temperature 250—400° C. over a catalyst selected from the class consisting of kaolin and alumina.

59223. Telefonaktiebolaget L. M. Ericsson. Arrangement for inter-connecting and stretching of metal bands. Characterised by a lock containing at least one curved part of a material allowing certain permanent deformation and on other side a fastening arrangement.

59224. Ruhrchemie Aktiengesellschaft. High initial effect insecticides. Comprising 1-fluoro-3.4.5.6.7.10.10-heptachloro-4.7-methylene-4.7.8.9-tetrahydronaphthalene and/or 1:3-difluoro-4.5.6.7.10.10-hexachloro-4.7-methylene-4.7.8.9-tetrahydronaphthalene, together with diluent or carrier.

59225. Howa Kogyo Kabushiki Kaisha (known as Howa Machinery Limited). A drawing frame for cotton slivers. Bobbin driving mechanism may be traversed up and down so as to wind the roving around the bobbin and speed of bobbin may be lowered mechanically.

59226. Heinrich Koppers Gesellschaft mit beschränkter Haftung. Process for the pressure refining of crude benzene. Initially heating hydrogen containing circulating gas and benzene to less than 200° C. and passing through catalysts at above 320° C. and then contacting with fresh gas.

59227. Wild-Barfield Electric Furnaces Limited. Improvements in apparatus for feeding liquids at slow rate. (January 6, 1956.) Comprising a closed chamber with an inlet and the outlet for liquid is led upwards to a fine control needle valve and an indicating flow meter and a chamber.

59228. Pending.

59229. Waagner-Biro Aktiengesellschaft. Apparatus for stripping ingot moulds and/or ingots. Lifting gear is provided with control elements which operate the outer tongs of stripping gear by lifting ropes.

59230. Waagner-Biro Aktiengesellschaft. Stripper crane. Lifting gear and with it the stripping gear are made rotatable to strip off by turning ingot molds fused to their support.

59231. Libbey-Owens-Ford Glass Company. Method and apparatus for heating glass sheets. Hot liquid bath and means for heating and also means for bending positioned in bath.

59232. Chemiefarm Grunenthal G.m.b.H. Novel antibiotically active products. [Addition to No. 53933.] A basic antibiotic is reacted with pantothenol or a functional derivative thereof.

59233. Phillips Petroleum Company. Improvements in modification of polymers and novel modified polymers. Heating a polymer having an average molecular weight of at least 20,000 in an inert atmosphere.

59234. N. V. Onderzoekingsinstituut Research. Process for the manufacture of threads, fibres, films and like products from viscose. Viscose having an organic radical bound to a polyalkylene oxide is spun in an acid spinning bath containing more than 3 per cent. of a zinc-salt.

59235. Kaiser Engineers Overseas Corp. A lubricating system for a rotating element. A lubricant receiving chamber defined by sealing element between a collar fixed to the rotating element and a stationary ring surrounding the collar.

DECEMBER 28.

59236. Libbey-Owens-Ford Glass Company. Method and mould or apparatus for controlling the heating of glass sheets to be bent. Selected portion of the glass sheet heated facing a sheet of heat absorbing member which member is cooled by a fluid.

59237. The Goodyear Tire and Rubber Company. Improvements in Disc type brake. Means engaging radially outer portion of the brake pressure plate resists dishing movement of it towards the brake disc.

59238. The Goodyear Tire and Rubber Company. Improvements in Pneumatic tires. A thin layer of uncured vulcanizable ozone resistant elastomeric material is formed on the crown of the tread.

59239. The Goodyear Tire & Rubber Company. Improvements in disc brake. The load application point and the area distribution of the shoe is offset to prevent the brake shoe to rotate.

59240. The Goodyear Tire & Rubber Company. Improvements in dual compartment tire. Annular diaphragm arranged between tire and rim is made air impervious to retain air for an extended period of time.

59241. Chas. Pfizer & Co. Inc. Pharmaceutical compositions containing steroid compounds. [Divided out of No. 54358; ante-dated to April 27, 1955.] The composition comprises a pregnane or allo-pregnane compound having an ionic ester group at the 3 and/or 21 position and a pharmaceutical carrier.

59242. Caterpillar Tractor Co. Side dumping bucket for vehicle mounted loaders. Comprising a material handling bucket supported by a cradle, pivotal means securing one end of the bucket to the cradle bucket tipping means pivotally attached to both the cradle.

59243. O. W. Burke, JR. Elastomers combined with other polymers containing carboxyl groups and vulcanizates thereof. Comprising elastomer, polymer with carboxylic groups, filler and accelerating agent.

59244. Technicolor Corporation. Developer and method of making dyed relief records. Exposing film to form latent image, developing it to form silver image and hardening it in region of developed silver, etching off unhardened film, and dyeing the relief record so produced, using hypo in developer to prevent film from being etched all the way through in the high lights.

59245. Technicolor Corporation. Cinematographic apparatus. A brake associated with roller, a presser for pressing film against roller between locations where film meets roller and where it leaves it, and means for actuating presser and brake concomitantly thereby to hold film in position on the roller while being braked.

59246. Standard Telephones and Cables Limited. Improvements in or relating to magnetic record tape containers. (December 30, 1955.) Consisting of a driving device for the tape, a store in the form of a flat container in which the tape circulates as an endless loop, and electric control means for the tape.

59247. Ciba Limited. Process for the manufacture of pyrazoles. [Divided out of No. 56669; ante-dated to February 29, 1956.] α -cyano- α -formyl acetic acid containing in α -position a hydrogen atom, is reacted with a hydrazine containing at least 3 hydrogen atoms attached to the ring nitrogen atoms.

59248. Ciba Limited. Manufacture of new pyrazolo-pyrimidines. [Divided out of No. 56669; ante-dated to February 29, 1956.] A 5-unsubstituted 2-aryl-3-amino-pyrazole-4-carboxylic acid and a carboxylic acid are reacted together care being taken that at least one of the two carboxyl groups is functionally converted and contains nitrogen atom.

59249. F. Hoffmann-La Roche & Co. Aktiengesellschaft. Esters of vitamin A and method for the preparation of same. Vitamin A alcohol is reacted with an acid halide of the reaction product of polyethylene glycol of a mono-alkyl ether thereof with a dicarboxylic acid anhydride.

DECEMBER 29.

59250. Council of Scientific and Industrial Research. Electro-winning of lead from lead sulphate. Conducting electrolysis between 85° and 90° C. using leach liquor obtained by leaching pure lead sulphate and 20 per cent. caustic soda, containing upto 45 gms/litre of Pb as electrolyte.

59251. S. L. Mukherjee and Albert David Ltd. Improvements in or relating to the manufacture of sulphonamide derivatives. Reacting p-acetamino benzene sulphonamide with N'-nitro-N³-n-butyl urea.

59252. Universal Oil Products Company. Antiozidation of rubber. Adding to the rubber 2, 6-dialkoxy-4-alkyl-phenol.

59253. Heinrich Koppers Gesellschaft mit beschränkter Haftung. Apparatus for producing combustible gases. Comprising reaction chambers, a gas collecting chamber and a steam boiler, the gas collecting chamber having an elongated horizontal tube of circular cross section, on bounding surface of which the reaction chambers, are disposed in two diametrically opposite rows.

59254. The Sudan Gezira Board, and Robert Boby Limited. Machines for pulling cotton plants and the like out of the ground. (January 10, 1956.) The device has a pair of endless moving belts lengths and a pair of pneumatic tyred wheels.

59255. O. S. Heyns. Method and apparatus for facilitating the processes of parturition. A decompression chamber with means to seal it with the body of the mother and means to reduce pressure in the chamber.

DECEMBER 31.

59256. Void.

59257. J. R. Gupta. Automatic diagnosis & treatment box. Comprising three sections each of two portions, one for list of symptoms and other divided into horizontal and vertical chambers by plurality of partitions for cards slips having thereon disease name and its symptoms.

59258. Aktiebolaget Bofors. Method of producing N-alkyl-tetrahydroquin-aldinic acid amides. Reacting tetrahydroquinaldinic acid amide with aromatic amine or isocyanate thereof.

59259. Aktiebolaget Bofors. Method of producing α -N-alkyl-piperidine- and α -N-alkyl-pyrrolidine carboxylic acid amides. Accepted on 6th May 1958. Nitrosating malonic acid arylamide ester, reducing and linking with polymethylene dihalogenide, thereafter, effecting ring closure in the product followed by decarboxylation and N-alkylation.

59260. Aktiebolaget Bofors. Method of producing α -N-alkyl-piperidine and α -N-alkyl-pyrrolidine carboxylic acid amides. Reducing 3-cyano-propyl or 2-cyano-ethyl malonic acid diethyl ether effecting ring closure chlorinating, opening the ring, converting to acid chloride joining with aromatic amine, effecting ring closure and N-alkylating.

59261. Arens Controls Limited. Control mechanism for moving movable articles such as a window, damper, louver or the like. (January 13, 1956.) Including a flanged roller or the like mounted for rotation on a terminal member.

59262. Claude Paz & Visseaux. Housing for an over-voltage or lightning arrester. Having a low pressure gaseous filling, consisting of a one piece body of insulating material having a cavity for receiving said arrester.

59263. B. B. Chemical Company Limited. Improvements in or relating to cements and methods of coating workpieces with cements. Forming on a workpiece a coating of cement comprising incompatible resinous materials in intimate admixture.

59264. Coal Industry (Patents) Limited. Improvements in the underground gasification of coal. (Addition to No. 58239). Wherein a reaction in a bore-hole is initiated by heat from a heat source adjacent the coal by means of a stream of gas.

PART II.

Subject-Matter Index of Patent Applications for the year 1956.

This index covers all the published Applications included in the Chronological List in Part I of this volume. The entries are given by the Serial Numbers of the Applications ; the date and other particulars may be found by reference to the List. This index forms a continuation of the indexes contained in the Consolidated Subject-Matter Index 1912-1932 and the Patent Office Journals published since 1934.

Each main class is distinguished by a symbol such as "LX(1)".

A

- Abrading machines, *see* POLISHING, ETC.
Abrasive wheels, *see* POLISHING, ETC.
Absorbents, solid, for gases and vapours, *see* CHEMICAL PROCESSES, ETC.
Absorption refrigerating system, *see* COOLING, ETC.
Acaricidal composition, *see* DISINFECTING, ETC.
Accumulators, electric, *see* BATTERIES, ETC.
Acetanilide derivatives, *see* CARBON COMPOUNDS, ETC.
Acetyl salicylic acid, *see* CARBON COMPOUNDS, ETC.
Acetylene, *see* CARBON COMPOUNDS, ETC.
Acids organic, metallic salts of, *see* CARBON COMPOUNDS, ETC.
Acoustic well logging apparatus, *see* MINING, ETC.
Acoustic well logging apparatus, electric, *see* MEASURING & TESTING, ETC.
Acrylonitrile solutions for making films and filaments, *see* CELLULOSE, ETC.
Acyl compounds, *see* CARBON COMPOUNDS, ETC.
Acylamino-carboxylic acid amides, *see* CARBON COMPOUNDS, ETC.
Acylamino diols, *see* CARBON COMPOUNDS, ETC.
Acylamino sugars, *see* CARBON COMPOUNDS, ETC.
Acyloxy aluminium alcoholate derivative, *see* CARBON COMPOUNDS, ETC.
Adapters for medical syringes, *see* MEDICAL, ETC.
Additive for feed mixtures for stimulating growth of animals, *see* ANIMALS, ETC.
Adhesive bandages, surgical, *see* MEDICAL, ETC.
Adhesive coated fabrics, *see* PROOFING, ETC.
Adhesive composition containing rubber, *see* INDIA RUBBER, ETC.
**ADHESIVE MATERIALS AND COMPOSITIONS (OTHER THAN RUBBER).
XLII(1).**
compositions, adhesive, *see* Compositions, etc.
Compositions (for joining surface to surface by a thin layer excepting

ADHESIVE MATERIALS AND COMPOSITIONS, ETC.—contd.

- gelatine, gum and starch). 56626, 57509, 57726, 57999, 58884, 58958.
- Gelatine and flue preparation of. No case.
- Gums and like plant products preparation of. No case.
- resins for bonding glass sheets, *see* Compositions, etc.
- Sizes and finishes for paper and textile materials, other than resin sizes. No case.
- Starch, dextrine and gluten, preparation of. No case.

ADVERTISING AND DISPLAYING APPARATUS (OTHER THAN MONOGRAMIC APPARATUS). XLI(1).

(This heading does not include articles of utility which are adapted to carry advertisements.)

- advertising and signalling, monogramic apparatus for. *see* SIGNALS, MISCELLANEOUS.
- display devices for attachment to stationary articles and like, *see* Other than, etc. (Attached, etc.).
- Moving and changing—
 - Illuminated and optical apparatus. No case.
 - Other than illuminated and optical apparatus. No case.
- Other than moving—
 - Attached advertisements on vehicles and miscellaneous articles. 57472.
 - Boards and posters. No case.
- smoke and sky signs, *see* SIGNALS, MISCELLANEOUS.
- Miscellaneous—
 - Advertising container, fixed. 56590.

AERATING LIQUIDS. XIV(1).

- Apparatus other than siphon bottles. No case.
- deaerating and degasing liquids, *see* CHEMICAL PROCESSES, ETC.
- Siphon bottles. No case.
- Aerials, *see* WIRELESS, ETC.
- Aerofoils, *see* AERONAUTICS.

AERONAUTICS. LIII(1).

(This heading does not include construction of instruments fitted on aircraft for indicating, observing and recording purposes or for use in aerial warfare or articles of furniture and wearing apparel.)

- aerofoils, *see* Details and accessories, etc. (Planes and wings).
- bearing assemblies for power units, *see* BEARINGS, ETC.
- bomb releasing from aircrafts, *see* EXPLOSIVES, ETC.
- Brake disc for landing wheels. *see* BRAKES, ETC.
- containers forming part of the aircraft body, *see* Details, etc. (Fuselage, etc.).
- controlling gas turbine engines on aircraft, *see* TURBINES, ETC.
- Details and accessories apart from general design—
 - Controlling, steering and balancing. 57239, 58423, 58424.
 - Fuselage and body construction. 57930.
 - Launching and landing including landing gear construction. 56401.

AERONAUTICS. LIH(1)—contd.

Details and accessories, etc.—*contd.*

Miscellaneous details—

Air intake systems in aeroplane engines. 56749.

Crash resistant seats. 56946.

Power conserving means. 58842.

Visual position indicating apparatus. 58289.

Parachutes. 57731.

Planes and wings. 58260, 58424.

Propelling. No case.

Havier-than-air aircraft, general design of. 56944.

helicopters, *see* Havier than air, etc.

jettisoning devices in aircrafts, *see* LIFTING, ETC.

Lighter-than-air aircraft, general design of. No case.

load releasing devices, *see* LIFTING, ETC.

reducing surface friction between aircraft surface and atmosphere, *see* Details and etc. (Miscellaneous details, etc.).

signal arrangement on landing places for incoming aircraft, *see* Details. etc. (Launching, etc.).

speedometers for airplanes, *see* FARES, ETC.

Aerosol producing, *see* SPRAY, ETC.

Agglomerating or briquetting ores, *see* ORES, ETC., TREATING, ETC.

AGRICULTURAL IMPLEMENTS. I(1).

(This heading includes only cultivating, gardening and harvesting appliances.
For farmyard appliances *see* ANIMALS, ETC.).

Cultivating implements. 56457, 56897, 56898, 56949, 56998, 57313, 58005, 58124, 58259, 58354, 58479, 58938, 59254.

fertilizers, distributing apparatus, *see* Sowing, etc.

Gardening appliances. No case.

Harvesting appliances. 57518, 58479.

implement depth control devices for tractors, *see* Cultivating, etc.

irrigation equipments, *see* Miscellaneous, etc.

Miscellaneous agricultural implements—

Devices to hold pesticidal composition on plants. 56492.

Irrigation equipment. 57757.

Roller, land, garden and road. 56628.

Tractors fitted with syraying machines. 56949.

pipe lines for irrigation purposes, *see* PIPES, ETC.

planter, sugar-cane, *see* Sowing, etc.

power transmission systems for driving tractors, *see* MOTOR VEHICLES.

power-take-off arrangements for tractors, *see* MOTOR VEHICLES.

puddling implement, *see* Cultivating, etc.

rollers, land garden and road, *see* Miscellaneous.

Sowing appliances. 56891, 57617.

sprinkler pipes for irrigation, *see* SPRAY PRODUCERS, ETC.

tractors, *see* Cultivating, etc.

wheels for agricultural apparatus and implements, *see* WHEELS, ETC.

wheels for tractors, *see* WHEELS, ETC.

AIR AND GASES, TREATING. XLVII(1).

(This heading does not include cooling, drying and heating of air and gases, and ventilations.)

Compressing, exhausting and moving—

Bellows and air-pump using flexible bags or diaphragms. No case.

Miscellaneous—

Apparatus for suction on of dust and the like. 56376.

Desulfurisation of compressed gas and like under pressure. 58976.

Gases moving. 56913.

Rotary pressure exchangers. 56977.

Piston pumps. 56873, 56881.

Vacuum and pressure cleaning and dusting apparatus, domestic. 56943.
purifying gases by adsorbent beds of active materials, *see* Miscellaneous.
separating dust, fog and solid particles from, other than by washing, *see*
Treating otherwise, etc. (Separating, etc.).

storing liquefied gases, *see* Treating otherwise, etc. (Storing under pressure).

Treating otherwise than by compressing and exhausting and moving—

Liquefying, solidifying and revaporising. 57048, 57188, 57570.

Miscellaneous—

Cleaning by suction pump. 57986

Separation of broken fibres, dust, broken threads from the stream of
airs. 58223.

Treating gases with beds of active materials. 58972.

Separating dust, fog and solid particles from, other than by washing.

56711, 56740, 57532, 57592, 58022, 58073, 58222, 58312, 58701, 58860.

Storing under pressure. 57803.

Air brakes, *see* BRAKES, ETC.

Air conditioning apparatus arrangement and adaption of for ventilating, *see*
VENTILATION.

Air distribution apparatus, for ventilation, *see* VENTILATION.

Air filters, *see* AIR, ETC.

Air separating from solids, other than by washing, *see* AIR, ETC.

Air springs, *see* SPRINGS, ETC.

Aircraft wheels, brake discs for, *see* BRAKES, ETC.

Aircrafts, *see* AERONAUTICS.

ALARMS, BURGLAR AND THE LIKE AUTOMATIC. LI(1). 58295.

ALARMS, FIRE AND TEMPERATURE. XXXIX(1).

No case

Alcoholic liquids distilling, *see* DISTILLING, ETC.

Alcohols, *see* CARBON COMPOUNDS, ETC.

Aldehydes, *see* CARBON COMPOUNDS, ETC.

Alkaloids, *see* CARBON COMPOUNDS, ETC.

Alkoxynitrile, *see* CARBON COMPOUNDS, ETC.

Alkyl benzenes, *see* CARBON COMPOUNDS, ETC.

Alkylamine derivatives, *see* CARBON COMPOUNDS, ETC.

Alkylaminoacyanilides, *see* CARBON COMPOUNDS, ETC.

Alkylene diamines, *see* CARBON COMPOUNDS, ETC.

Alkylene glycol complex esters. *see* CARBON COMPOUNDS, ETC.

ALLOYS. XXXIII(1).

Containing aluminium but not iron. 57942.

Containing barium, calcium, magnesium, and strontium (but not aluminium and iron). No case.

Containing chromium (but not containing aluminium, barium, etc., and iron). No case.

Containing iron. 56419, 56642, 56833, 57315, 57764, 57832, 57833, 58162.

Containing molybdenum, nickel, potassium, sodium tantalum, titanium, tungsten, uraneum, vanadium, zinc, zirconium, copper lead, manganese and other miscellaneous metals (but not iron, aluminium, barium, etc., and chromium). 57764.

magnesium base alloy containing aluminium, *see* Containing, aluminium, etc.

Making processes. 57831, 57832, 57833, 57942, 58294, 58311, 58566.

refining, *see* Making processes.

refining by removal of dissolved gases from molten alloys, *see* Making process.

Alternators electric field supply system for, *see* DYNAMO-ELECTRIC, ETC.

Alumina, *see* CHEMICAL COMPOUNDS, ETC.

Alumina lye purifying of by electrolysis, *see* ELECTROLYSIS, ETC.

Aluminium manufacturing electrolytically, *see* ELECTROLYSIS, ETC.

Alumino-thermic welding, *see* METAL WORKING.

Amides, organic, *see* CARBON COMPOUNDS, ETC.

Amines, *see* CARBON COMPOUNDS, ETC.

Amino-aldehydes, *see* CARBON COMPOUNDS, ETC.

Amino hydroxy carboxylic acid amides, *see* CARBON COMPOUNDS, ETC.

Aminoketones, *see* CARBON COMPOUNDS, ETC.

Amino-piperidine-dione derivatives, *see* CARBON COMPOUNDS, ETC.

Aminopropanediol, *see* CARBON COMPOUNDS, ETC.

Ammonia, *see* CHEMICAL COMPOUNDS, ETC.

Ammonium nitrate, *see* CHEMICAL COMPOUNDS, ETC.

Ammonium nitrate fertilizers, *see* MANURES, ETC.

Ammonium salts, inorganic, *see* CHEMICAL COMPOUNDS, ETC.

Ammonium salts, quarternary, *see* CARBON COMPOUNDS, ETC.

Ammonium sulphate, *see* CHEMICAL COMPOUNDS, ETC.

AMMUNITION AND AMMUNITION RECEPTACLES. XXXIX(2).

Ammunition cartridges. 57118.

Blasting and mining cartridges, charges, detonators, fuzes and tappings. 56889, 57196, 57990, 57991, 58402, 58844.

bomb releasing from aircrafts, *see* EXPLOSIVES, ETC.

Cartridge loading, unloading, and finishing off. No case.

charges for perforating well casings, *see* Blasting, etc.

explosion composition, *see* Explosives, etc.

fins for rocket, *see* PROJECTILES.

Packing, storing and handling ammunition. (special devices for). No case.

Projectile fuses and apparatus for setting. 56272, 56674, 58562, 58772.

Projectiles. 57882, 58562, 58628, 58784, 58964.

safety heating devices for initiating blasting charges, *see* Blasting, etc.

AMMUNITION AND, ETC.—contd.

Androstane compounds, *see* CARBON COMPOUNDS, ETC.

Anilides, *see* CARBON COMPOUNDS, ETC.

Animal feed additives, *see* ANIMALS, ETC.

Animal power engines, *see* MOTORS (MISCELLANEOUS).

ANIMALS, HOUSING, FEEDING, CATCHING, DESTROYING AND FARM-YARD APPLIANCES. I(2).

Destroying appliances (other than traps). No case.

device for preventing access of insects and animals, *see* ANIMALS, ETC.

feed for ruminants, *see* Miscellaneous.

Guards for preventing access of insects and animals. 56759.

Miscellaneous—

Cattle fodder. 57437.

Feeding for ruminants. 56241.

Feeding stuff. 57540.

Feeding stuff composition. 57344.

Selection and development. 56310.

Traps for catching animals and insects. No case.

ANNEALING, TEMPERING AND MODIFYING CHARACTER OF METALS. XXXIII(2).

Annealing boxes and like receptacles for heat treatment. No case.

Cementation, (including case hardening, malleabilising and otherwise modifying chemical characters of metals). 56981.

controlled atmosphere producing for annealing, *see* Miscellaneous.

Heating and cooling, treatment by. 57024, 57026, 57115, 58686, 58789, 58898.

heating in presence of protective material, *see* Heating, etc.

Miscellaneous—

Controlled atmosphere producing for annealing steels. 58897.

Magnetically treating sheet metals. 57248.

Preparing sheet-metal. 58173.

surface hardening by heat treatment, *see* Heating, etc.

tensile strength of metal improving by twisting and untwisting, *see* METAL WORKING, ETC.

Anodic coatings on metals and alloys, *see* ELECTROLYSIS, ETC.

Antenna systems, *see* WIRELESS, ETC.

Anthracene, *see* CARBON COMPOUNDS, ETC.

Anthraquinone dyestuffs, *see* CARBON COMPOUNDS, ETC.

Anti-aircraft firing control system, electric, *see* ELECTRIC SIGNALLING, ETC.

Antibiotics of known constitution, *see* CARBON COMPOUNDS, ETC.

Antibiotics compositions containing, *see* DISINFECTING, ETC.

Antioxidants for preserving rubber, *see* INDIA RUBBER, ETC.

Antisway devices for railway vehicles, *see* RAILWAY, ETC., BODY, ETC.

Anti-toxins, vaccines, sera and the like of undefined chemical composition, *see* DISINFECTING, ETC.

Apparatus for delivering measured quantities of liquid, *see* MEASURES, ETC.

Arc furnaces, electric, *see* HEATING BY ELECTRICITY.

Arc torch for metal working, *see* METAL WORKING.

Armature coils for dynamo electric machine, *see* DYNAMO ELECTRIC, ETC.

ANNEALING, TEMPERING, ETC.—contd.

- Artificial boards, *see* INDIA RUBBER, ETC.
- Artificial fibres, *see* CELLULOSE, ETC.
- Artificial filaments, *see* CELLULOSE, ETC.
- Artificial respirators, *see* MEDICAL, ETC.
- Aryl compounds, *see* CARBON COMPOUNDS, ETC.
- Atomisers or spray producers, *see* SPRAY, ETC.
- Auto-claves, *see* HEATING SYSTEMS, ETC.
- Automatic railway couplings, *see* RAILWAY, ETC., BODY DETAILS, ETC.
- Automatic train stopping devices, *see* RAILWAY SIGNALS, ETC.
- Automobiles suspensions for, *see* MOTOR VEHICLES.
- Axle boxes, railway vehicle, *see* BEARINGS, ETC.
- Azaphenothiazines, *see* CARBON COMPOUNDS, ETC.
- Azathioxanthanes, *see* CARBON COMPOUNDS, ETC.
- Azobenzene derivatives, *see* CARBON COMPOUNDS, ETC.
- Azo dyes, *see* CARBON COMPOUNDS, ETC.
- Azole compounds, *see* CARBON COMPOUNDS, ETC.

B

- Bactericidal compositions, *see* DISINFECTING, ETC.

BAGS, PURSES, SACKS, PORTMANTEAUX, BASKETS AND WICKERWORK. XL(1).

- bags for curing tyres, *see* WHEELS, ETC.
- Bags, sacks, wrappers and like relatively flexible packages (other than of paper). No case.
- Baskets, woven crates and wickerworking. No case.
- envelopes, postal wrappers, *see* Paper bags, etc.
- hat boxes, *see* Portmanteaux, etc.
- holdalls, *see* Bags, etc.
- knapsacks, *see* Bags, etc.
- leather purses, *see* Portmanteaux, etc.
- luncheon baskets and picnic fitted, *see* Portmanteaux, etc.
- mail bags, *see* Bags, etc.
- Paper bags, wrappers and like (including making envelopes). No case.
- Portmanteaux, suitcases, bags and like relatively non-flexible article carriers. No case.
- Bale, ties, *see* PACKING, ETC.
- Baling presses, *see* PACKING, ETC.
- Ball and roller bearings, *see* BEARINGS, ETC.
- Ball point writing unit, *see* WRITING, ETC.
- Balls, playing and the like, *see* GAMES, ETC.
- Bamboo pulp, *see* PAPER
- Band pass filters, *see* TELEGRAPHS, ETC.
- Bandages, *see* MEDICAL, ETC.
- Barbituric acid derivatives, *see* CARBON COMPOUNDS, ETC.
- Barrels and like receptacles, *see* HOLLOW WARE.
- Bats for table tennis, *see* GAMES, ETC.

BATTERIES, ELECTRIC. LVIII(1).

accumulator plate, *see* Accumulators, etc. (Electrode, etc.).

Accumulators—

Details, unclassified—

Lid of accumulators. 58879.

Multi-cell battery. 56885.

Electrodes, separators and the like components, forms and arrangement of. 56790, 56811, 57452, 57520, 57787, 58087, 58387, 58432, 58787.

Electrolytes for charging. No case.

Dry cells. 56597, 56812, 57752, 57753, 58071, 58218, 58340, 58431, 58879.

electrodes for accumulators, *see* Accumulators—(Electrodes, etc.).

lids for accumulators, *see* Accumulators—(Details, etc.).

lids for dry cells, *see* Dry cells.

lids for primary cells, *see* Primary cells, etc. (Components, etc.).

microporous separators, *see* Accumulators (Electrodes, etc.).

Miscellaneous. No case.

Primary cells other than dry cells—

Components other than electrolytes, depolarisers and electrodes. 58341.

Electrolytes, depolarisers, and electrodes forms and arrangement of. 57958.

separators for dry cells, *see* Dry cells.

separators for storage cells, *see* Accumulators—(Electrodes, etc.).

Battaries, electric, charging system for, *see* ELECTRIC SUPPLY, ETC.

Beads glass, filling of, *see* GLASS, ETC.

Bearing, lubricating, *see* LUBRICATING.

BEARINGS AND BEARING SURFACES. LIV(1).

(This heading does not include jewel bearings, for clock, electricity meters, etc., for which, see respective headings, Furniture castors are indexed under FURNITURE.)

Axle boxes, railway vehicle. 57654, 57763, 58856.

Ball bearings. 56853, 57430, 58444.

Bearings, other than ball, roller and axle boxes. 57232, 57346, 57763.

dust covers for railway axle boxes, *see* Axle boxes, etc.

lubricating axle boxes and other bearings, *see* LUBRICATING.

Miscellaneous, details applicable to bearings in general—

Bearing mounting blocks. 56238.

Bearing support for rotary drums. 58790.

Guide bearings. 57143.

Guide bearings. 57143.

Roller bearings. 56853, 58444, 58834.

Beds, *see* FURNITURE.

BELLS, HORNS, WHISTLES AND THE LIKE. LX(1).

(This heading includes only the construction of bells and horns, etc. Arrangement of bells, etc., for definite purposes are indexed only under headings for such purposes, such as SIGNALS, MISCELLANEOUS; ELECTRIC SIGNALLING, ETC.).

Bells. No case.

Diaphragm, plate, rod and tube vibrators (excepting PHONOGRAPHS, ETC., TELEPHONES, ETC.). 57422

BELLS, HORNS, ETC.—contd.

Fog and like warning horns (other than diaphragm, plate, and rod vibrators). No case.

Sound magnifying and directing appliances. No case.

Whistles. No case.

Belt conveyor, *see* LIFTING, ETC.

Belt making from knited textile fabrics, *see* FABRICS WOVEN.

Belts bands and ropes for transmitting penear, *see* MECHANICAL MISCELLANEOUS.

Belts, made of woven textile fabrics, *see* FABRICS, ETC.

Bending glass, *see* GLASS, ETC.

Bending metal sheets rods and bars, *see* METAL WORKING.

Benzhydryl piperidine compounds, *see* CARBON COMPOUNDS, ETC.

Benzimidazoles, *see* CARBON COMPOUNDS, ETC.

Benzoic acid esters, *see* CARBON COMPOUNDS, ETC.

Benzonitrile, *see* CARBON COMPOUNDS, ETC.

Benzoquinolizines, *see* CARBON COMPOUNDS, ETC.

Benzoxazolyl compounds, *see* CARBON COMPOUNDS, ETC.

BEVERAGES MALT PRODUCTS AND ORGANIZED FERMENTS (OTHER THAN AERATING BEVERAGES). XIV(2).

(This heading does not include making of tea, coffee and like beverages for which see DECOCTIONS, ETC. Milk and cream are indexed under FOOD, ETC. Steps in the process for the production of beverages involving improvements in cooling, heating, filtering, etc., are indexed under the heading denoting such operations.)

Beverages (including alcoholic beverages produced by fermentation)—

Ageing, maturing and purifying (other than tea, coffee and like infusions, making and preparing). No case.

Fruit juices, extracts and syrups, lemonades. No case.

Materials and compositions. No case.

Wort producing and treating. No case.

delivering measured quantities, apparatus for. *see* MEASURES, ETC.

dispensing and delivering by coin and cheque feed apparatus, *see* COIN-FEED, ETC.

Fusel oils. No case.

Melts and malting and malt extracts compositions. No case.

Miscellaneous. No case.

Yeast and other organised ferments (other than Bacteria, cultivating). No case.

Beverages, other than tea, coffee and like, *see* BEVERAGES, ETC.

Beverages, tea, coffee and like, *see* DECOCTIONS, ETC.

Bicycles, *see* CYCLES, ETC.

B-ionone, *see* CARBON COMPOUNDS, ETC.

Bis-biguanides, *see* CARBON COMPOUNDS, ETC.

Bis-(piperidylmethyl)-phenoles, *see* CARBON COMPOUNDS, ETC.

Bituminous and like plastic composition. *see* PLASTIC COMPOSITIONS.

BITUMINOUS EMULSIONS. XXVII(1).

No case.

Bituminous compositions, *see* PLASTIC COMPOSITIONS.

Blades for turbines, *see* TURBINES, ETC.

Blasting charges safety heating elements for, *see* AMMUNITION, ETC.

Bleaching textiles, *see* DYEING, ETC.

Board, artificial, *see* INDIA RUBBER, ETC.

Bobbin changing device in spinning frames, *see* SPINNING, ETC.

Bobbin-changing devices for looms, *see* LOOMS.

Boiler feed water treatment of, *see* STEAM GENERATORS.

Boilers, burners for, *see* BURNERS, ETC.

Boilers or steam generators, *see* STEAM GENERATORS.

Boilers, stokers for *see* FURNACES, ETC.

Boiling reactors using atomic fission means, *see* CHEMICAL PROCESSES, ETC.

Bolts, door and like, *see* FASTENINGS, ETC.

BOLTS, STUDS, NUTS, WASHERS AND RIVETS. LXIV(1).

bolts, door and like, *see* FASTENINGS, ETC.

Bolts, studs, nuts and washers, construction of (other than those modified for locking). 57414, 58388, 59089.

Locking by—

Devices, not otherwise provided for. 59190.

Grip between threads of nuts and bolts only. 56680, 56681.

Keys, pawls, rollers, balls, coiled springs and like. 57788.

Washers. 57414.

locking by longitudinal grooves other than by threads only, *see* Locking by (Devices, etc.).

Miscellaneous—

Rivets. No case.

Fastener feeding device. 58355.

Screw-sockets and bolt-hole bushes (including sockets and plugs for wood screws and nails). No case.

spring locking means for nuts, *see* Locking by-(Keys, etc.).

washers, excepting those modified for locking, *see* Bolts, etc.

washers modified for locking, *see* Locking by-(washers).

Bomb releasing from aircrafts, *see* EXPLOSIVES, ETC.

Bonding surfaces adhesive compositions for, other than rubber, *see* ADHESIVE, ETC.

BOOKS, STATIONERY, SEALS, CIPHERS AND EDUCATIONAL APPLIANCES. XLII(2).

(Loose leaf books are indexed under FILING.)

book binding, *see* Books, etc.

Books, mercantile, forms and like. No case.

envelopes, making, *see* BAGS, ETC.

globes and orreries, *see* Stationery, etc.

indexing and cataloguing, *see* Books, etc.

maps and charts, *see* Stationery, etc.

models, *see* Stationery, etc.

slates for writing, *see* Stationery, etc.

Stationery, wafers, and seals, and codes and educational appliances (including albums, picture and picture frames). 56252, 56782, 57553, 58132.

BOOTS AND SHOES. LXVI(1).

(For cutting and punching operations on shoe parts before assembling, see CUTTING, ETC.)

Apparatus for making and repairing. 56234.

Construction of (including methods of making). 56545, 56753, 56933, 56953, 57678.

methods of making footwears, see Construction, etc.

Protectors, trees and other accessories for. No case.

Boring metal, see METAL WORKING.

BOTTLES, JARS AND LIKE VESSELS. XL(2).

(This heading comprises only vessels of glass and like vitreous materials, earthenware and stone-ware. Cold and heat retaining vessels are indexed under COOLING. Capsules, medical and like are indexed under DISINFECTING. Cruets and condiment receptacles are indexed under TABLE ARTICLES. Siphon bottles are indexed under AERATING.)

No case.

bottling, see STOPPERING, ETC.

closing, see STOPPERING, ETC.

opening, see STOPPERING, ETC.

siphon bottles, see AERATING, ETC.

washing, see WASHING AND CLEANING.

Bottles, stoppers for, see STOPPERING, ETC.

BOXES AND CASES. XL(3).

(This heading includes only constructions, fittings and details of containers for displaying, storing and transit of articles and materials. Casings intimately associated with particular articles and not of interest as containers for other articles such as Clock cases are indexed under the headings for the articles.)

Apparatus for making and finishing boxes and cases. No case.

Boxes, and cases, other than folding, match and money boxes and letter boxes. 56590, 57465.

Cases for card, tickets, stamps and like. 59257.

Coffins. No case.

Folding, collapsible or knock down cases and crates. No case.

hat boxes, see BAGS, ETC.

Letter boxes and like. No case.

Match boxes, cigarette boxes and like boxes of drawer and shell type. 58077, 58456.

Miscellaneous—

Cases for holding feeding and dispensing in cake or bar fans. 59081.

Money boxes, specially designed for money. No case.

Braceletes, see DRESS, ETC., also JEWELLERY.

Braceletes for watches, see JEWELLERY.

Brackets, wall and the like, see FURNITURE.

Brake adjustment devices, see BRAKES, ETC.

Brake, control devices, see BRAKES, ETC.

BRAKES AND RETARDING APPARATUS. LV.

- Actuated by hand or mechanical power (other than fluid pressure or electric), not forming part of the brake. No case.
- air pressure operated brake systems, *see* Fluid, etc. (Systems, etc.)
- Brake block, shoes and like energy absorbing elements. 56214, 58633.
- brake deflection compensator, *see* Force transmitting, etc.
- brake disc, *see* Brake block, etc.
- control devices for fluid pressure actuated brakes, *see* Appropriate sub-division under Fluid pressure, etc.
- control valves for fluid pressure brakes, *see* Fluid pressure, etc. (Drivers' and like valves, etc.)
- cooling brake shoes, *see* Miscellaneous.
- Electric and magnetic brakes—No case.
- electrically controlled fluid pressure systems, *see* Fluid Pressure, etc.
- empty load braking system, fluid actuated, *see* Fluid pressure, etc. (Systems, etc.)
- fluid operated brakes, *see* Fluid pressure, etc. (Cylinders, etc.)
- Fluid pressure actuated—
 - Cylinders, vacuum chambers, reservoirs, and their appurtenances. 56522, 56742, 56845, 57350, 57432, 57530.
 - Drivers' and like valves (including emergency equalising and feeding valves). 56972, 58049.
 - Electric control. 57035, 57530.
 - Systems, details other than cylinders, valves and electric control. 57242, 57271, 57272, 58400, 58502, 59245.
- Force transmitting and equalising arrangements. 56708, 56846, 56867, 57271, 57272, 57411, 57501, 57003, 57741, 58344, 58400, 58634, 59237, 59239.
- Miscellaneous—
 - Cooling brake shoes. 58635.
 - shoes-frictional composition containing rubber for, *see* INDIA RUBBER, ETC.
 - slack adjusting mechanisms, *see* Force transmitting, etc.
 - vacuum braking systems arrangement, for transmitting braking force, *see* Force, etc.
 - wear compensation means, *see* Force transmitting, etc.
- Brazing and soldering, *see* METAL WORKING.
- Bread making, *see* COOKING, ETC.

BRICKS. BLOCKS. SLABS, TILES AND POTTERY. XXV(1).

- Blocks, slabs and tiles (other than compound). 57122, 57274, 57515.
- clay pellets, making of, *see* MOULDING, ETC.
- Compositions and processes of making blocks, slabs and tiles. 57012, 57038, 57839, 58741.
- Compound or composite blocks. 57839.
- enamelling and enamels, *see* GLASS MANUFACTURE
- Miscellaneous. No case.
- Pottery, manufacture of. No case.
- Bricks moulding, *see* MOULDING, ETC.

BRICKS, BLOCKS, ETC.—contd.

Brush and other contact holders for electric switches and like, *see* **ELECTRIC-SWITCHES, ETC.**

Brushes and brush holders for dynamo-electric machines, *see* **DYNAMO-ELECTRIC, ETC.**

BRUSHING AND SWEEPING. XLIII(1).

56351, 56943, 58088.

Buckets, grab, *see* **LIFTING, ETC.**

Builders scaffoldings, *see* **BUILDING, ETC.**

BUILDINGS AND STRUCTURES. XXVI(1).

(*Buildings sub-aqueous, such as caissons cofferdams, and sluice gates are indexed under* **HYDRAULIC ENGINEERING.**)

anchorage devices for prestress reinforcement members, *see* Reinforcement concrete.

brickwork structures, *see* Walls, etc.

Bridges and aqueducts. No case.

Buildings other than bridges, tents, and sub-aqueous buildings. 56210, 56298, 57149.

Casting and moulding *in situ*. 56449, 56596, 58458.

Columns. No case.

constructional elements such as slotted metal sections, *see* Iron works, etc.

corners of walls and the like, shaping plaster in, *see* Plastering, etc.

elevating and erecting device for masts and pylons assembled from sections, *see* **LIFTING, ETC.**

Floors and ceilings (including roofs and roofing). 57391, 59112.

foundations, *see* Miscellaneous.

Girders and beams. 57869, 58717.

Ironwork, constructional, metal plates, rods and bars (excepting those modified for use with special kinds of structures such as Reinforced concrete; **SHIPS, ETC.**). 56496, 57077, 57158, 58356.

Joints, Carpenters' (wood joints with interfitting parts). No case.

masts, *see* Ports, etc.

Miscellaneous—

Foundation bases. 57361.

Panels, artificial. 56883.

Rock anchoring means. 56534.

Stair case. 59189.

Subterranean anchorage. 58742, 58743.

moulding concrete pole *in situ*, *see* Casting, etc.

plaster compositions, *see* **PLASTIC, ETC.**

plaster planers, *see* **HAND TOOLS.**

Plastering. 57210.

Posts and poles. 57466, 57475, 58607.

prefabricated buildings, *see* Buildings other than, etc.

prestressed concrete structures, *see* Reinforced, etc.

pylons, *see* Posts, etc.

Reinforced concrete and reinforcements (constructions of interest apart from structures made thereof). 57004, 57548, 58702, 58915, 58940.

BUILDINGS AND, ETC.—contd.

reinforcing element, *see* Reinforced, etc.

rock anchoring means, *see* Miscellaneous.

Scaffolding and staging. 57339, 57371.

shutterings for casting beams columns, walls, *in situ*, *see* Casting and moulding, etc.

subterranean anchorage for foundation, *see* Miscellaneous.

Tents and awnings. 56840.

Wall-pointing tools, *see* HAND TOOLS.

Walls and partitions. 57038, 57274, 57515, 59196.

Buildings blocks, *see* BRICKS, ETC.

Burglar alarms, *see* ALARMS, BURGLAR, ETC.

BURNERS AND BURNER FITTINGS. XXX(1).

Atmospheric, incandescent-lamp and like (*i.e.*, in which combustible gas is mixed with air or carburant before reaching combustion zone). 56530, 56747, 56924, 56961, 57679, 58627, 58860.

Blow-pipe and like pressure type. 56813, 57060.

burners for wick stoves, *see* Wick, etc.

burners in which combustible gas is mixed with air, *see* Atmospheric, etc.

gasifiers for incandescent burners, *see* Atmospheric, etc.

incandescent vapour burners, *see* Atmospheric, etc.

liquid fuel supply means to spray burners, *see* Spray.

Miscellaneous—

Fuel supply and control systems. 58880.

Oil-burners vaporised by heat and ignited by temperature. 58867.

oil burners, spray, *see* Spray.

Open tray, spirit and like burners, without any special vaporising devices.

No case.

Pulverised fuel. No case.

Spray. 56961, 57114, 58880.

wick burners for stoves, *see* Wick, etc.

Wick, with vaporising means. 57960, 58407, 58867.

Burnishing machines, *see* POLISHING, ETC.

Button and button fastenings, *see* DRESS, ETC.

Butyric acid amides, *see* CARBON COMPOUNDS, ETC.

C

Cable, electric joints for, *see* ELECTRIC COUPLINGS, ETC.

Cables electric; *see* CONDUCTORS, etc.

Cocoa butter substitute, *see* FOOD, ETC.

Cadmium salts inorganic, *see* CHEMICAL COMPOUNDS, ETC.

CALCULATING. COUNTING AND CASH REGISTERING APPARATUS. XLI(2).

apparatus for performing arithmetic operations, *see* Calculating, etc.

Calculating apparatus other than for cash registers and statistical machines).

56245, 57375, 57728, 58155, 58163, 58911.

Cash and sales recorders and money delivering apparatus. No case.

CALCULATING, COUNTING AND, ETC.—contd.

- Counting apparatus. 56297, 56754, 57245, 58017.
- electronic computers, *see* Calculating, etc.
- magnetic storage devices, *see* ELECTRIC SIGNALLING, ETC.
- Statistical machines. No case.
- summarising or totalising machine, *see* Totalisators, etc.
- Totalisators and like automatic wagering apparatus. 56501, 58342.

CANDLES AND TAPERS. XXX(2).

- No case.
- Cop winding machine, *see* SPINNING, ETC.

CAPACITANCES, RESISTANCES AND INDUCTANCES, ELECTRIC. LVII(2).

- chokes, *see* Inductances.
- chokes, *see* Industances.
- Condensers. 56810, 56909, 57201, 57214, 57451, 57701, 57932, 58021, 58055, 58081, 58409, 58410, 58411, 58629, 59168.
- Inductances. 56406, 57049, 58258, 58337, 58722.
- Resistances. 57459, 57632, 58933, 59002.
- Capacitors, electric, *see* CAPACITANCES, ETC.
- Capsules, making by extension, *see* MOULDING, ETC.
- Carbamic acid esters, *see* CARBON COMPOUNDS, ETC.
- Carbamic esters of aminoalkinols, *see* CARBON COMPOUNDS, ETC.
- Carbides, *see* CHEMICAL COMPOUNDS, ETC.
- Carbon and charcoal, *see* NON-METALLIC ELEMENTS.
- Carbon articles, making of. by moulding, *see* MOULDING, ETC.

CARBON COMPOUNDS, ORGANIC. IX(1).

(*Excepting* CELLULOSE ; FATS, ETC.; *Fatty acids, for soap making, Glucose ; Maltose, etc.; Gums ; Oils (essential mineral and tar ; Starch and dextrin ; SUGAR ; WAXES.)*

- acetylene, *see* Hydrocarbons, etc.
- alcohols of vitamin A series, *see* Vitamin.
- alkaloids of unknown constitution, *see* Miscellaneous.
- anthraquinone dyestuffs, *see* Dyes, (Dyes other than, etc.)
- azathioxanthenes not containing halogen, *see* Substitutions, etc., Nitrogen, etc. (Containing heterocyclic, etc.).
- azo dyes, *see* Dyes, etc.
- azole compounds, *see* Substitution, etc.
- β -ionone, *see* Substitution, etc. (Oxygen, etc.)
- β -methoxy- β -ethyl- γ -p-chlorophenyl acrylonitrile, *see* Substitution, etc. (Nitrogen, etc.)
- benzonitrile, *see* Substitution, etc. (Nitrogen, etc.—Containing aromatic, etc.)
- carotenes, *see* Hydrocarbon, etc.
- condensation products, resinous, *see* Resinous, etc.
- condensation products of melamine, *see* Resinous, etc.
- cinnoline derivatives, *see* Substitution, etc.
- dichloroacetanilide derivatives, *see* Substitution, etc.

CARBON COMPOUNDS, ETC.—contd.

Dyes and lakes—

Azo dyes (for azo compounds which are not dyes, *see* Substitution derivatives, etc.) 56286, 56404, 57551, 57786, 58249, 58477, 58974, 59014.

Dyes, other than Azo dyes. 56774, 56775, 57778, 58624, 58687, 59221.

ether-like derivatives of tropane, *see* Substitution, etc.

gibberellic acid, *see* Miscellaneous.

-3-halogen phenothiazines, *see* Substitution, etc. (Halogen, etc.)

heterocyclic compounds, preparation of iminodibenzyl derivatives, *see* Substitution, etc. (Halogen, etc.)

hexachlorobicyclo heptadiene, *see* Substitution, etc. (Halogen, etc.)

Hydrocarbons and unsubstituted heterocyclic compounds and their homologues. 56227, 56236, 56392, 57007, 57190, 57235, 57602, 57622, 57623, 57828, 57876, 58119, 58160, 58161, 58320, 58380, 58381, 58466, 58474, 58602, 59052, 59057, 59058, 59188, 59226.

hydrocarbons, hydrogenation, *see* Hydrocarbons, etc.

hydrocarbons, preparation by hydrogenation of carbon monoxide, *see* Hydrocarbons, etc.

ketosteroids, *see* Substitution, etc.

α -dichloroacetamido- β -halogeno p-halogeno propiophenone, *see* Substitution-etc. (Halogen, etc.)

α -phenyl succinimides, *see* Substitution, etc. (Nitrogen, etc.)

lycopene, *see* Hydrocarbons, etc.

Miscellaneous—

Alkaloid of unknown constitution. 56517, 57526, 57539, 57817.

Extraction of deserpidine. 57087.

Gibberellic acid. 59204.

Irradiating and reducing dehydrocholesterol. 56372.

Proteins. 56350, 57384, 58222.

Organo metallic compounds. 57494, 57834, 59102.

Oxo-nor leucine compounds, *see* Substitution, etc.

pyridyl methyl phosphate, *see* Substitution, etc. (Nitrogen, etc.)

polyisocyanate modified polymers, *see* Resinous, etc.

polymerisable and condensation products of amides of unsaturated carboxylic acids, *see* Resinous, etc.

polymerisation and condensation products, *see* Resinous, etc.

polymers of α -olefines, resinous, *see* Resinous, etc.

polyolefins resinous making of, *see* Resinous, etc.

proteins, *see* Miscellaneous.

pyridine carboxylic acids, *see* Substitution, etc. (Nitrogen, etc.—containing heterocyclic etc.)

rescinamine phosphate, *see* Miscellaneous on alkaloid.

resinous condensation and polymerisation products, *see* Resinous, etc.

Resinous condensation and polymerisation products of undetermined structure. 56288, 56305, 56311, 56312, 56403, 56408, 56414, 56415, 56422, 56581, 56699, 56700, 56717, 56720, 56733, 56743, 56770, 56772, 56783, 56793, 56821, 56847, 56894, 56930, 57064, 57074, 57083, 57110, 57118, 57121, 57141, 57189, 57212, 57222, 57276, 57279, 57338, 57341, 57353, 57425, 57429, 57441, 57442, 57445, 57487, 57584, 57586, 57601, 57665, 57710, 57725, 57751, 57760, 57765, 57766, 57789, 57790, 57794, 57835, 57857, 57859, 57872, 57895, 57912, 57984, 57999, 58020, 58045, 58060,

CARBON COMPOUNDS, ETC.—contd.*Resinous, etc.—contd.*

58118, 58189, 58429, 58442, 58586, 58622, 58681, 58622, 58690, 58727,
58751, 58766, 58837, 58847, 58883, 58886, 59013, 59017, 59018, 59042,
59056, 59088, 59096, 59103, 59130, 59131, 59172, 59205, 59233.

resinous polymerisation and condensation products, *see* Resinous, etc.

Substitution derivatives of hydrocarbons and heterocyclic compounds other than dyes—

Halogen, containing. 56222, 56315, 56322, 56377, 56424, 56445, 56446,
56447, 56452, 56462, 56485, 56494, 56519, 56537, 56543, 56575, 56604,
56620, 56634, 56641, 56669, 56670, 56774, 56775, 56788, 56818, 56835,
56950, 56953, 56954, 56962, 56968, 57052, 57054, 57063, 57072, 57117,
57124, 57142, 57152, 57154, 57163, 57199, 57243, 57263, 57299, 57332,
57356, 57366, 57389, 57406, 57415, 57428, 57461, 57462, 57468, 57517,
57522, 57529, 57549, 57563, 57576, 57581, 57594, 57638, 57648, 57664,
57674, 57675, 57680, 57690, 57715, 57747, 57771, 57776, 57779, 57824,
5870, 57904, 57920, 57951, 57970, 57978, 57979, 58002, 58009, 58039,
58053, 58072, 58080, 58090, 58098, 58106, 58139, 58140, 58154, 58197,
58206, 58251, 58257, 58278, 58362, 58373, 58415, 58462, 58418, 58482,
58485, 58512, 58541, 58563, 58573, 58625, 58645, 58651, 58666, 58693,
58695, 58716, 58733, 58744, 58754, 58760, 58763, 58783, 58801, 58815,
58866, 58925, 59041, 59073, 59074, 59129, 59147, 59187, 59247, 59248.

Nitrogen (but not containing halogen)—

Containing aromatic and hydroaromatic ring system but not containing heterocyclic rings or sulphonamide or sulphonamide group in the molecule. 56294, 56336, 56377, 56410, 56424, 56447, 56462,
56507, 56514, 56515, 56575, 56604, 56620, 56633, 56788, 56792, 56919,
56952, 56992, 56993, 57063, 57072, 57263, 57356, 57366, 57406, 57428,
57485, 57525, 57529, 57531, 57549, 57568, 57588, 57593, 57611, 57614,
57650, 57674, 57676, 57680, 57694, 57719, 57729, 57747, 57770, 57777,
57821, 57824, 57825, 57901, 57902, 57904, 57997, 58031, 58068, 58072,
58144, 58206, 58230, 58278, 58415, 58449, 58462, 58625, 58654, 58695,
58716, 58745, 58754, 58760, 58817, 58832, 58912, 59045, 59046, 59157,
59222.

Containing heterocyclic ring system in the molecule, but containing no sulphonamide or sulphonamide group. 56222, 56262, 56276, 56330,
56445, 56452, 56462, 56475, 56485, 56487, 56488, 56494, 56507, 56519,
56524, 56575, 56578, 56634, 56640, 56663, 56669, 56670, 56739, 56770,
56882, 56886, 56888, 56931, 57015, 57054, 57063, 57078, 57086, 57163,
57171, 57197, 57199, 57211, 57243, 57251, 57260, 57299, 57331, 57366,
57389, 57415, 57431, 57455, 57461, 57468, 57484, 57485, 57517, 57522,
57529, 57549, 57566, 57576, 57600, 57614, 57621, 57629, 57631, 57638,
57648, 57649, 57670, 57674, 57675, 57677, 57680, 57681, 57690, 57694,
57715, 57719, 57747, 57771, 57779, 57817, 57821, 57827, 57904, 57970,
57979, 57995, 58000, 58039, 58044, 58048, 58053, 58065, 58072, 58106,
58139, 58140, 58154, 58179, 58184, 58195, 58230, 58251, 58257, 58336,
58343, 58413, 58462, 58481, 58482, 58483, 58537, 58541, 58593, 58608,
58618, 58651, 58654, 58666, 58720, 58747, 58754, 58760, 58801, 58815,
58817, 58830, 58866, 58882, 58902, 58903, 58925, 58989, 59000, 59014,
59020, 59041, 59074, 59087, 59114, 59129, 59135, 59147, 59157, 59166,
59181, 59232, 59247, 59248, 59258, 59259, 59260.

Containing no ring system in the molecule. 56199, 56236, 56446, 56447,
56551, 56770, 56888, 57016, 57031, 57332, 57568, 57821, 57824, 57901,
57902, 58103, 58230, 58475, 58654, 58716, 58817, 58912, 58998, 58999.

CARBON COMPOUNDS, ETC.—concl'd.

Substitution derivatives, etc.—*cont'd.*

Nitrogen, etc.—*cont'd.*

Sulphonamide or sulphonamide derivatives.—56363, 56637, 57342, 57366, 57664, 58092, 58188, 58506, 58716, 58934, 59097.

Oxygen (but not containing halogen and nitrogen)—

Aldehyde, ether ester and other miscellaneous groups but not containing carboxylic, ketone and hydroxy groups. 56233, 56236, 56325, 56364, 56412, 56507, 56543, 57072, 57079, 57250, 57255, 57332, 57333, 57418, 57484, 57568, 57609, 57852, 58002, 58031, 58119, 58278, 58336, 58361, 58383, 58430, 58645, 58776, 58868, 58870, 59220, 59249.

Carboxylic groups. 56236, 56391, 56408, 56735, 56842, 57072, 57124, 57159, 57355, 57754, 58002, 58203, 58278, 58868, 59079.

Hydroxy groups but not containing carboxylic and ketonic groups. 56233, 56236, 56279, 57005, 57072, 57287, 57333, 57484, 57635, 57810, 57811, 57952, 57953, 58002, 58031, 58119, 58230, 58278, 58334, 58335, 58379, 58645, 59079.

Ketonic, anhydride and lactone groups but not containing carboxylic groups. 56307, 56368, 56852, 56995, 57052, 57072, 57125, 57237, 57468, 57484, 57528, 57541, 57582, 57589, 57635, 57644, 57703, 57722, 57776, 57888, 57920, 58002, 58009, 58031, 58076, 58119, 58167, 58197, 58278, 58529, 58645, 58692, 58693, 58694, 58733, 58756, 58931, 58983, 58997, 59027, 59154, 59221, 59251.

Sulphur, phosphorous, boron and other elements containing, but not halogen, nitrogen and oxygen. 57457, 57458, 57589.

sulphonamide derivatives, *see* Substitution, etc. (Sulphonamides, etc.)

sulphonic acid derivatives, *see* Substitution, etc.

vinyl chloride, *see* Substitution, etc. (Halogen, etc.)

Vitamins. 56539, 57082, 57344, 58334, 58335, 58336, 58379, 59133, 59202.

vitamin A—acetate, *see* Substitution, etc. (Oxygen, etc.)

Carbon dioxide, *see* CHEMICAL COMPOUNDS, ETC.

Carbonisation of coal, *see* COKING, ETC.

Carbonmonoxide, *see* CHEMICAL COMPOUNDS, ETC.

Carbon pile regulators, *see* ELECTRIC SUPPLY, ETC.

Carboxylic acids and their salts esters, *see* CARBON COMPOUNDS, ETC.

Card indexes, *see* FILING, ETC.

Carding engines, *see* SPINNING, ETC.

Carene polymers, *see* CARBON COMPOUNDS, ETC.

Carotenes, *see* CARBON COMPOUNDS, ETC.

Carotenoids, *see* CARBON COMPOUNDS, ETC.

Carpets, *see* FABRICS WOVEN.

Carrier transmission systems, *see* WIRELESS, ETC.

Cartridge, ammunition, *see* AMMUNITION, ETC.

Case and base for sewing machine, *see* SEWING, ETC.

Cases or boxes, *see* BOXES, ETC.

Casting apparatus for metals, *see* CASTING METALS.

Casting beams, columns, walls, etc., *in situ*, *see* BUILDINGS, ETC.

CASTING METALS. XXXIII(3).

Casting machines and processes dependent on such machines. 56211, 56542, 57298, 57390, 57610, 58120, 58126, 58159, 58412, 59214.

Flasks and boxes, moulders'. No case.

Materials and linings for moulds and cores. No case.

Miscellaneous—

Ingot moulds stripping. 59230.

Stripping ingot moulds. 59229.

Moulding Machines. No case.

Moulds and cores. 58159.

Patterns. No case.

Processes of castings in general (not dependant on any particular machine 56212, 57491, 57942, 58294, 59066, 59067, 59068, 59069.

stripping ingot moulds after casting, see Miscellaneous.

Casting, non-metals, and other than casting *in situ* for buildings, see MOULDING, ETC.

Cast-iron, see IRON & STEEL, ETC.

Catalysis, see CHEMICAL PROCESSES, ETC.

Catalyst, see CHEMICAL PROCESSES, ETC.

Catalytic agents, preparation and treatment of, see CHEMICAL PROCESSES, ETC.

Cathode ray tube, see VACUUM, ETC.

Cellulose esters, see CELLULOSE, ETC.

Cellulose fibres, treating with liquids, see DYEING, ETC.

CELLULOSE (NON-FIBROUS) AND DERIVATIVES THEREOF (INCLUDING ARTIFICIAL FILAMENTS, SHEETS MADE FROM CELLULOSE PROTEIN AND LIKE SOLUTIONS). X.

(Steps in processes for production of cellulose and derivatives involving improvements in connection with bleaching, drying, filtering and moulding are indexed under headings denoting such operations.)

Apparatus processes and compositions for making filaments and films, artificial silk and like textile products. 56200, 56260, 56365, 56533, 56542, 56613, 56707, 56800, 57090, 57236, 57479, 57557, 57706, 57857, 57874, 57981, 58071, 58218, 58286, 58358, 58385, 58427, 58492, 58533, 58592, 58622, 58851, 58886, 58947, 58965, 59013, 59195, 59234.

Conversion products such as hydro-cellulose and oxy-cellulose, obtaining (including preparatory treatment of cellulose for the production of cellulose derivatives and solutions of cellulose). No case.

deacrating and degassing viscose and other spinning solution, see Apparatus, etc.

Derivatives, other than esters and ethers (including solutions and dispersions thereof and articles made therefrom). No case.

Esters and ethers of cellulose (including solutions thereof and articles made therefrom). 57628, 58071, 58218.

polyacrylonitrile solution for making films and filaments, see Apparatus etc.

winding artificial filaments, see SPINNING, ETC.

Cellulosic plaster compositions, see PLASTIC, ETC.

CEMENT, CONCRETE, PLASTER, ARTIFICIAL STONE, ASPHALT AND REFRACTORY MANUFACTURE. XXV(2).

Asphalts (naturally occurring) preparation and treatment of. No case.

bituminous, resinous, fatty, oily and like plastic compositions, see PLASTIC COMPOSITIONS.

CEMENT, CONCRETE, ETC.—contd.

cement composition, *see* Concrete, etc.

Cements, portland. 57926, 58822, 58905, 59182.

Concretes and mortars, lime, magnesia and magnesium carbonate and cement. 57255, 57388, 58266, 58375, 58494, 58909, 58955, 58970, 59182.

Plaster, lime and chalk plastic compositions. No case.

portland cement and other silicious materials mixtures of. *see* Concrete, etc.

Refractory substances for furnace linings and crucibles and for high temperature purposes. 56838, 57012, 57884, 58553, 58869.

Slags, treatment of. 56316.

slurry preparing by separating granular materials by flotation, *see* WASHING GRANULAR, ETC.

Stone, artificial and stone preserving and colouring. (*This heading comprises only compositions fused together at high temperatures. For compositions other than those fused at high temperatures, see PLASTIC COMPOSITIONS.*) 56278.

Cementation of ferrous alloys, *see* ANNEALING, ETC.

Cementitious compositions, *see* CEMENT, ETC.

CENTRIFUGAL AND SCREW FANS AND PUMPS. XLIV(1).

Centrifugal fans and pumps—

Casings and structural details, other than blades and driving gear. 56309, 57873, 58944, 58945.

Driving gear and regulating means. 57089, 58446.

Impeller blades, construction and mounting of. 57873.

Screw fans and pumps—

Casings and structural details other than blades and driving gear. 56309, 58944, 58945.

Driving gear and regulating means. No case.

Impeller blades, construction and mounting of. No case.

CENTRIFUGAL MACHINES AND APPARATUS (OTHER THAN FANS AND PUMPS). XXXIV(1).

(*This heading does not include CASTING METAL; GLASS MANUFACTURE; MOULDING, ETC.; SPRAY PRODUCERS.*)

butyrometers, *see* Density separators.

cream separators, *see* Density separators.

Density separators. 57219, 58204.

installation, centrifugal machines, *see* machines, etc.

loading gate for centrifugal machines, *see* Machines, etc.

Machines and separators other than density and strainer separators and miscellaneous details. 56764, 58454, 58455.

separators, centrifugal, *see* Machines, etc.

Strainer separators. No case.

Centrifugal separating machines, *see* CENTRIFUGAL, ETC.

Centrifugal separators, *see* CENTRIFUGAL, ETC.

Ceramic composition for bricks, *see* BRICKS, ETC.

Ceramic composition for wall, floor, etc., *see* BUILDING, ETC.

CENTRIFUGAL MACHINES, ETC.—contd.Chain conveyor, *see* **LIFTING, ETC.**Chain for belt conveyors, *see* **CHAINS, ETC****CHAINS AND SHACKLES. LXIV(2).**

57914, 58675.

bracelets, *see* **JEWELLERY.**Chairs, furniture, *see* **FURNITURE.**Chamber filter press, *see* **FILTERING, ETC.**Change-speed gearing, *see* **MECHANISM MISCELLANEOUS.**Charges, blasting and mining, *see* **AMMUNITION, ETC.****CHEMICAL COMPOUNDS, INORGANIC. III**

(Steps in the production of inorganic compounds involving improvements in connection with condensing, cooling, crystallising, distilling, drying, filtering, grinding and crushing, mixing and packing are indexed in headings denoting such operations.)

Acids not containing oxygen. 57657, 58986, 59058.

Alkali manufacture. No case.

Ammonia and ammonium compounds and salts. 56941, 57495, 58768, 58985, 58986, 59058.

carbides, *see* **Compounds, etc.**

Carbonates (excepting alkali metal). 58528.

Compounds, chemical miscellaneous. 57112, 57608.

Cyanogen compounds and metallic derivatives. 58320, 58333

Halides, metallic. 56370, 56683, 56791, 56986, 58243, 58244, 58384, 58509.

Hypochlorites, metallic. No case.

Nitrates, metallic. 58985, 58986.

Nitrides, metallic. No case.

Oxides and oxy-acids, non-metallic. 56986, 57050, 57120, 57410, 57524, 57657, 57721, 58331, 58986, 58987, 59191.

Oxides, hydrates, and oxy-acids. 56532, 57227, 57489, 57657, 57721, 57724, 58264, 58352, 59064.

Phosphates, metallic, 56803, 56868, 56869, 56880, 58570, 58985, 58986.

Salts, metallic, miscellaneous. No case.

Silicates, metallic. No case.

Sulphates, metallic. 58985, 58986, 59048.

Sulphides, metallic. 57721, 58086, 58264, 59121.

Sulphites metallic. 58243.

sulphur dioxide, *see* **Oxides and oxyacids, etc.****CHEMICAL PROCESSES AND APPARATUS. IV(1).**

(This heading includes only processes and apparatus for which no specific provision exists under the other key headings.)

absorbents, solid, for gases and vapours, *see* **Separating mixtures, etc.**

Apparatus and processes depending upon apparatus for carrying catalytic reactions—

For reaction between gases and vapours. No case.

Other than for reaction between gases and vapours. 59019.

CHEMICAL PROCESSES, ETC.—contd.

- autogenetic oxidation of combustible materials, *see* Miscellaneous, etc.
- boiling reactor using atomic fission means, *see* Miscellaneous, etc.
- catalysts, *see* Catalytic agents, etc.
- Catalytic agents, preparation and treatment of. 56392, 56546, 56558, 56720, 56745, 56865, 56877, 57075, 57076, 57083, 57227, 57445, 57450, 57605, 57760, 57790, 57857, 58441, 58466, 58705, 59015, 59203.
- catalytic processes not depending upon any apparatus, for producing definite chemical compounds, *see* headings for the compounds.
- catalytic reaction between fluidised solid and gas apparatus for carrying out, *see* Apparatus and processes, etc. (Other than, etc.).
- Colloidal solutions, dispersions and emulsions other than bituminous emulsions. 56323, 57107, 57236, 57269, 57765, 58013, 58045, 58279, 59093.
- contacting reacting gases with liquids, *see* Miscellaneous, etc.
- deaerating liquids, *see* LIQUID, ETC.
- degasifying liquids, *see* Liquid and gases, etc.
- dispersions pigmented, *see* Colloidal, etc.
- Gas and vapours, treating with electric discharges. No case.
- Liquid and gases separating. 56723, 57225, 57479.
- Miscellaneous processes and apparatus—
 - Autogenetic oxidation of combustible material. 56220.
 - Boiling reactors. 56828.
 - Carbon black pellets for ink compounding. 58315.
 - Chemical reaction between gases and liquids or pulverulent solids. 59019.
 - Contacting gases with liquids. 57358.
 - Detecting means. 56648.
 - Endothermic reactions, unspecified. 58320.
 - Fluidized roasting. 57410.
 - Increasing adhesives of colours to polyethylene compounds. 56707.
 - Nuclear reactors. 57573, 57595, 57696, 59169.
 - Oxidation processes. 56217, 56219.
 - Oxidising combustible materials. 56215.
 - Preparing derivatives of difficult by reactive organic compounds. 58996.
 - Process and apparatus containing solids with gases. 59173.
 - Process and apparatus for treating of solid goods with gaseous agents. 59203.
 - Processing of two liquid systems of different specific gravities which do not mix with each other. 57219.
 - Sulphonating process. 58572.
 - Treating chemical substances to increase wettability. 56302.
- nuclear reactors, *see* Miscellaneous, etc.
- processing of two liquid systems of different specific gravities which do not mix with each other, *see* Miscellaneous, etc.
- purification of metallic halides, *see* Halides metallic.
- radiation processes, not depending upon any apparatus, for producing definite chemical compounds, *see* headings for the compounds.
- Radiations, treating substances with for effecting chemical reactions and sterilisation, apparatus and processes depending upon such apparatus. 57697.
- reacting solids with gases in fluidised bed, *see* Miscellaneous, etc.

CHEMICAL PROCESSES, ETC.—concl'd.

reaction medium for ethylene polymerisation, etc., *see* Catalytic agent, etc.

Separating mixtures of gases (excepting air and gases liquefying). 58604, 58972.

silica, *see* Oxides, oxy acids, etc.

Testing and gas analysis. No case.

CHIMNEYS AND FLUES. XXXVI(2).

No case.

CIGARS, CIGARETTES AND SMOKER'S APPLIANCES AND TOBACCO MANUFACTURE. XVI.

Cigarettes and cigarette making machines and appliances—

Apparatus and details, unclassified. No case.

Cigarettes. 58052.

Continuous-rod type of machines. No case.

Cutting and trimming mechanism. No case.

Feeding tobacco (including opening and picking) and delivering cigarettes in orderly arrangement. No case.

Cigars and cheroots and cigar making machines. No case.

machine for making filters for cigarettes, *see* Cigarettes, etc. (Cigarettes).

Smoker's accessories (ash trays, pipes, cigarette holders, pouches, smoking devices). 57424.

tobacco bowls for hubble bubble, *see* Smoker's accessories, etc.

Tobacco, manufacture of and tobacco substitutes and smoking mixtures. 58149.

CINEMATOGRAPHY. XXXVIII(1).

(This heading does not include cinematographic picture films and lantern slides for which see PHOTOGRAPHY.)

Colour cinematography. No case.

film feeding or winding systems for projectors, *see* Film winding, etc.

Film winding and storing means. 59245.

Frames and casings (including arrangement of parts therein). No case.

Gates and exposure-position film carriers and film centring. No case.

Intermittent-feed mechanisms. No case.

Miscellaneous. No case.

Shutters and automatic control devices for cut-off shutters, switches and signals (including films modified for use therewith). No case

Stereoscopic and relief effects—producing. No case.

CLOCKS AND WATCHES. XLI(4).

57277, 58825.

bracelets for wrist watches, *see* JEWELLERY.

CLOSETS, BATHS AND LIKE SANITARY APPLIANCES. II(1).

Baths. No case.

Closets, sanitary—

Constructional features, other than seats, etc. 56645, 57133

Seats, seat guards, seat lids and seat backs. No case.

CLOSETS, BATHS, ETC.—contd.

- Commodes, bed pans and chamber pots. No case.
- flushing apparatus with valve & siphon arrangements, *see* Water waste, etc. (Combined valve & siphon, etc.)
- flushing cistern with valve discharge only, *see* Water, etc. (Valve discharge).
- latrines, *see* Closets, etc. (Constructional, etc.).
- Lavatory basins and sinks. No case.
- Miscellaneous appliances. No case.
- Urinals. No case.
- Water waste preventing cisterns, flushing and like—
 - Combined valve and siphon discharge and miscellaneous details. 57598.
 - Siphon discharge only. 56645.
 - Valve discharge only. 58399.
- Coating composition, *see* PAINTS, ETC.

COINFREED APPARATUS. XLI(3).

- (Coin and check freed telephone systems, other than construction of coin and check operated freeing mechanism are indexed under TELEPHONES.)
- Coin testing and fraudulent actuation, preventing, apparatus for. No case.
- Delivery of articles (including delivery of coins for change giving), apparatus for. No case.
- Fluids and electricity delivery of, by clock work, meter or otherwise. 57191.
- Franking and postmarking apparatus for. No case.
- Miscellaneous. No case.
- Telegraph and telephone apparatus. No case.

COKING AND GAS PRODUCERS. XXXII(1).

- coke-ovens, *see* Ovens, coke, etc.
- coke-ovens, coke discharging devices for, *see* Ovens, etc.
- Coking processes, not depending upon any particular type of apparatus. 56239, 56598, 57896, 58024, 58239, 58377.
- gas generators, *see* Gas producers.
- Gas producers. 56317, 57925, 58781, 59253, 59264.
- Miscellaneous—
 - Combination of coking chamber, chute, charring chamber, and a conveyor, etc. 56239.
 - Oscillatory, reciprocatory and rotary retorts. No case.
 - Ovens, coke (flue-heated). 57065, 57519, 58571, 58700, 58715.
 - Retorts, other than oscillatory, reciprocatory and rotating. No case.
 - valve arrangements for coke-ovens, *see* Ovens, etc.
- Combing or carding fibres, *see* SPINNING, ETC.
- Combustion chambers, internal combustion engines, *see* INTERNAL COMBUSTION, ETC.
- Combustion gas turbines, *see* TURBINES, ETC.
- Comminuting apparatus, *see* GRINDING, ETC.
- Comminuting tea leaves, *see* TEA, ETC.
- Commutators for dynamo, *see* DYNAMO, ETC.
- Compasses, dividers and like mathematical instruments, *see* PHILOSOPHICAL, ETC.
- Compensators for transformers, *see* ELECTRIC CURRENTS, ETC.

COKING AND GAS, ETC.—contd.

Composite yarns, *see* **SPINNING, ETC.**

Compositions, adhesive, other than containing India rubber. *see* **ADHESIVES, ETC.**

Compositions containing India rubber, *see* **INDIA RUBBER, ETC.**

Compositions containing polymerised olefins, *see* **PLASTIC COMPOSITIONS.**

Compositions for separator diaphragms of electric batteries, *see* **BATTERIES, ETC.**

Compressing air and gases, *see* **AIR AND GASES, ETC.**

Compressing & exhausting air & gases pressure exchangers for, *see* **AIR AND GASES, ETC.**

Compressing granular material press for, *see* **MOULDING, ETC.**

Compression refrigerating system, *see* **COOLING, ETC.**

Compressors, rotary, *see* **ROTARY ENGINES, ETC.**

Compressors for refrigerators, *see* **COOLING, ETC.**

Compressors, internal combustion engine type, *see* **INTERNAL, ETC.**

Compressors, reversed turbine type, *see* **TURBINES, ETC.**

Compressors, turbine type *see* **TURBINES, ETC.**

Computing machines, *see* **CALCULATING, ETC.**

Concrete and mortars treating, *see* **CEMENT, ETC.**

Concrete articles, making, *see* **MOULDING, ETC.**

Concrete foamed, foaming agents for, *see* **CEMENT, ETC.**

Concrete mixers, *see* **MIXING, ETC.**

Concrete structures casting *in situ*, *see* **BUILDINGS, ETC.**

Concrete structure, *see* **BUILDINGS, ETC.**

Condensation products, resinous, *see* **CARBON COMPOUNDS, ETC.**

Condensers, electric, *see* **CAPACITANCES, ETC.**

Condensing metallic vapours. *see* **METALS EXTRACTING, ETC.**

Condensing and evaporating liquids, *see* **DISTILLING.**

CONDUCTORS AND INSULATORS, ELECTRIC. LVIII(3).

arrangement for supporting overhead conductors in electric railways, *see* **Suspending, etc.**

Cables and conductors—

Armouring (including projecting and preserving core insulation with non-metallic coverings). No case.

Arrangement and disposition of constituent parts. 56296, 56535, 56620, 56638, 56777, 58166, 58265, 58665.

Conductive materials and cores for 57208.

Miscellaneous—

Coated conductors. 57470.

Conductive pattern adhering to insulating supports. 58982.

Conductor roll. 58665.

Covering conduction with insulating material. 58621.

Covering wires with insulating materials. 56718.

End sealing of cables. 57145.

Lapping machine. 58990.

Manufacture of cables. 56296, 58166.

Terminating heads. 56685.

With auxiliary conductors. 57620.

clamps or supports for conductors, *see* **Laying, etc. (suspending, etc.).**

CONDUCTORS AND, ETC.—contd.

- Conduits and casings, specially designed for cables and conductors. 57548.
- covering wires and conductors with insulating materials, *see* Cables, etc. (Miscellaneous).
- dielectric materials, *see* Insulating, etc.
- electric cables, construction of, *see* Cables, etc. (Arrangements, etc.).
- electromagnetic screens for high frequency cables arrangement of, *see* Cables, etc. (Arrangement, etc.).
- end sealing of cables, *see* Cables, etc. (Miscellaneous).
- extruding cable sheaths, metallic, *see* METAL WORKING.
- high frequency cables with conductors for low frequency currents, *see* Cables, etc. (With auxiliary, etc.).
- insulating fittings for spacing and supporting conductors, *see* Laying, etc. (Suspending, etc.).
- Insulating materials. 56718, 57215, 57470.
- Laying, fixing, suspending and supporting cables and conductors—
 - Insulators (including means for securing insulators together or to support). 57700, 58271.
 - Laying, erecting and repairing. No case.
 - Miscellaneous—
 - Electric cables construction of. 56296.
 - Suspending and supporting. 56508, 57133, 57264, 57699, 57849, 57850, 57954, 58271, 58525, 58774.
 - metallic sheaths, *see* Conduits, etc.
 - multi-core cable, arrangement of conductors of, *see* Cables, etc. (Arrangement, etc.).
 - multiple conductor cables, *see* Cables, etc. (Arrangement, etc.).
 - strain clamps for conductors, *see* Laying, etc. (Suspending, etc.).
- Connectors or coupling electric, *see* ELECTRIC COUPLING.
- Constructional elements, such as slotted metal section, *see* BUILDINGS, ETC.
- Contact holders for dynamo-electric machines, brush and like, *see* DYNAMO-ELECTRIC, ETC.
- Containers, filling and sealing of, *see* STOPPERING, ETC.
- Containers of drum type for liquids, *see* HOLLOW WARE.
- Containers or cans, *see* HOLLOW WARE.
- Containers or tubes collapsible, *see* HOLLOW WARE.
- Control devices for brakes, *see* BRAKES, ETC.
- Control system for electric motors, *see* MOTOR CONTROL, ETC.
- Control units in switching systems in telephone exchanges, *see* TELEPHONES, ETC.
- Control system for operating railway points, *see* RAILWAY, ETC. PERMANENT, ETC.
- Controlling aircrafts, *see* AERONAUTICS.
- Controlling and regulating the flow of liquid, *see* VALVES, ETC.
- Controlling gas turbine engines or aircrafts, *see* TURBINES, ETC.
- Converters, metallurgical *see* IRON & STEEL, ETC.
- Converting, alternating and direct current, electric, *see* ELECTRIC CURRENTS, ETC.
- Conveyor belt, *see* LIFTING, ETC.
- Conveyors, *see* LIFTING, ETC.
- Cookers, *see* COOKING, ETC.

COOKING, BAKING AND KITCHEN APPLIANCES. XV(1).

(This heading comprises only the apparatus and utensils indicated by the sub-headings. Sauce pans, pails and like hollow-ware are indexed under HOLLOW-WARE.)

Bread, biscuit, cakes and pastry, making. 56574, 57955, 58408.

Cooking apparatus, field, camp and like. No case.

Fruits, nuts, vegetables, meat, fish and game dressing. No case.

Graters, crumblers, scrapers (including apparatus for mincing and cutting slices). 56281.

Miscellaneous—

Dough shaping machine. 57040.

Oven accessories and other baking apparatus. 58408.

pressure cookers, *see* Steam hot water, etc.

Roasting jacks, and spits grilling and toasting apparatus. No case.

Steam, hot water and like cooking apparatus. 56574, 58800.

Tiffin and the like carriers. 58268, 58857, 58959.

COOLING AND ICE-MAKING. VII(1).

(This heading includes only general methods and apparatus for the production of cold and for cooling gases and liquids. Except in the case of items mentioned under sub-heading "Miscellaneous", cooling processes and apparatus applicable for particular purposes are indexed under the headings for such purposes. Thus methods of cooling Dynamo-electric machinery will be indexed under DYNAMO ELECTRIC, ETC.).

Cold and heat retaining vessels (containers of small capacity without cooling or heating means suitable for transporting or storing). 56282.

compressors for refrigerators, *see* Refrigerating, etc. (Compression, etc.).

Cooling gases and liquids (excepting heat inter-changing apparatus and ice-making). 56407, 56932, 58199.

cooling granular material, *see* Miscellaneous.

cooling powder material, *see* Miscellaneous.

heat actuated pumps operating on vapour generation and condensation cycle, *see* WATER, ETC., RAISING, ETC.

heat exchangers for refrigerators, *see* HEATING SYSTEMS, ETC.

Ice-making and congelation of liquids (excepting processes and apparatus for the production of cold in general to be used subsequently for ice-making). No case.

Miscellaneous—

Cooling granular material. 57860, 58494.

Cooling hot granular solid materials. 59174.

Cooling powder materials. 58955.

Granular material cooling. 59215.

Water circulating systems for cooling objects. 58209.

Refrigerating systems for the production of cold—

Absorption systems. 56923.

Compression systems. 56786, 57585, 58199.

Systems other than absorption and compression. 57022, 58070.

Refrigerators, cooling chambers and cold storage rooms, other than systems for production of cold. 58560, 58833.

thermoelectric cooling units, *see* Refrigerating systems, etc. (System other, etc.).

vacuum jacketed flask, *see* Cold and heat, etc.

COOLING AND ICE-MAKING—contd.

- Cooling and ventilating systems for dynamo-electric machines, *see* DYNAMO-ELECTRIC, ETC.
- Cooling arrangements for internal combustion engines, *see* INTERNAL, ETC.
- Cooling friction brakes, *see* BRAKES, ETC.
- Cooling granular and pulverulent materials, *see* COOLING, ETC.
- Coordinate Switches, *see* TELEPHONES, ETC.
- Cop winding machines, *see* SPINNINGS, ETC.
- Copal, *see* WAXES, ETC.
- Copolymers, *see* CARBON COMPOUNDS, ETC.
- Copper obtaining by electrolysis, *see* ELECTROLYSIS, ETC.
- Copying devices for machine tools. *see* METAL WORKING, ETC.
- Corrosion preventing and removing, *see* TINNING, ETC.
- Cosmetics, *see* TOILETS, ETC.
- Cots, *see* FURNITURE.
- Cotton harvestors, *see* AGRICULTURAL, ETC.
- Cotton-wool fleece cutting into pads, *see* CUTTING, ETC.
- Cotton-wool pad, apparatus for making, *see* MEDICAL, ETC.
- Cotton-wool pads, sanitary, *see* MEDICAL, ETC.
- Cotton-wool pads, packing, *see* PACKING, ETC.
- Counting apparatus, *see* CALCULATING, ETC.
- Couplers, railway, *see* RAILWAY, ETC., COUPLINGS, ETC.
- Coupling shafts and the like, *see* MECHANISM MISCELLANEOUS.
- Couplings, electric, *see* ELECTRIC COUPLINGS, ETC.
- Couplings for cables and wires, *see* ELECTRIC COUPLINGS, ETC.
- Couplings for chains, *see* CHAINS AND, ETC.
- Couplings for pipes and tubes, *see* PIPE-JOINTS, ETC.
- Couplings for railway vehicles, *see* RAILWAY, ETC., VEHICLES, ETC.
- Couplings for tractors and road vehicles, *see* ROAD VEHICLES.
- Couplings, hydraulic, *see* HYDRAULIC PRESSES, ETC.
- Couplings, shafts and the like, rotary members, *see* MECHANISM, ETC.
- Cradles for sewing machines, *see* SEWING, ETC.
- Cracking hydrocarbons, *see* DISTILLING, ETC.
- Cranes, *see* LIFTING, ETC.
- Crank, shafts, *see* MECHANISM, ETC.
- Creping paper, *see* PAPER.
- Crimping artificial yarns, *see* CELLULOSE, ETC.
- Cropping metal pipes and tubes, *see* METAL WORKING.
- Crown caps, *see* STOPPERING, ETC.
- Cruet, *see* TABLE ARTICLES.
- Crushing apparatus, *see* GRINDING, ETC.
- Crushing or pulverising, *see* GRINDING, ETC.
- Crystallising urea, *see* DISTILLING, ETC.
- Cuff attachments, *see* DRESS, ETC.
- Cuffs for shirts, or like garments, *see* DRESS, ETC.
- Cupric chloride, *see* CHEMICAL COMPOUNDS, ETC.
- Curing agent for hides and skins, *see* LEATHER.
- Cushioning devices or spring, *see* SPRING, ETC.
- Cushions for furniture, *see* FURNITURE.

CUTLERY. LXVI(2).

- Forks. No case.
- Knives. No case.
- Miscellaneous. No case.
- Razors and shavers. 58518.
- Scissors and hand shears. No case.
- Cutters for earth boring drills, *see* MINING, ETC.
- Cutting metal pipes and tubes, *see* METAL WORKING.

CUTTING, PUNCHING AND PERFORATING PAPER, FABRICS AND LIKE. XXIV(1).

- Cutting and severing machines. 56281, 56675.
- perforating apparatus for typewriting telegraphy, *see* TELEGRAPHS, ETC.
- Punching and perforating machines. No case.
- Cutting tools, for cutting metals, *see* METAL WORKING.

CYCLES AND LIKE VEHICLES. LI(5).

- Accessories for (awnings, windshields, stands and luggage carriers and like attachments). 56386, 56387, 56994, 57057, 57382.
- Brake operating mechanism. No case.
- chain covers for, *see* Accessories, etc.
- clutches, free wheel, *see* Driving, etc.
- Driving mechanism (including human power driving mechanism for apparatus other than vehicles). 56536, 57290, 58729.
- frame arrangement, *see* Structural, etc.
- holders for wheels when not in use, *see* Accessories, etc.
- horns, musical and sounding for, *see* BELLS, ETC.
- mud guard for wheels and stands for bicycle, *see* Accessories, etc.
- saddles, *see* Accessories, etc.
- Steering mechanism. No case.
- Structural design of (other than brakes, steering and driving mechanism). 56386, 56387, 56709, 56871.
- Cyclo aliphatic diamines, *see* CARBON COMPOUNDS, ETC.
- Cycloalkanes, *see* CARBON COMPOUNDS, ETC.
- Cyclohexane, *see* CARBON COMPOUNDS, ETC.
- Cyclone furnaces, *see* FURNACES, ETC.
- Cyclopentane, *see* CARBON COMPOUNDS, ETC.
- Cylinder heads for compressors, making other than by casting. *see* METAL WORKING.
- Cylinder heads for internal combustion engines, *see* INTERNAL, ETC.

D

- D.D.T. Compositions, *see* DISINFECTING, ETC.
- Deaerating and degassing liquids, *see* CHEMICAL PROCESSES, ETC.

DECOCTIONS, EXTRACTS AND INFUSIONS, MAKING. XIV(3).

- 56643.
- dispensing predetermined quantities of fluid apparatus for, *see* MEASURES OF, ETC.
- fluids dispensing and delivering by coin and cheque, *see* COINFREED, ETC.

DECOCTIONS, EXTRACTS, AND, ETC.—contd.

- Degasifying liquids, *see* CHEMICAL PROCESSES, ETC.
- Dehydro steroids, *see* CARBON COMPOUNDS, ETC.
- Delivering measured quantities of fluid, apparatus for, *see* MEASURES, ETC.
- Demagnetising apparatus, *see* DYNAMO ELECTRIC, ETC.
- Demodulator for frequency modulated wave, *see* WIRELESS, ETC.
- Dentrifrice composition, *see* TOILET, ETC.
- Deserpidine, *see* CARBON COMPOUNDS, ETC.
- Desizing cotton yarns or fabrics, *see* DYEING, ETC.
- Detecting radioactive radiation, electrical apparatus for, *see* MEASURING, ETC.
- Detecting railway vehicles past a fixed point, *see* RAILWAY SIGNALS, ETC.
- Detergents, *see* SOAPS, ETC.
- Developers, photographic, *see* PHOTOGRAPHY.
- Devices for preventing access of insects and, animals, *see* ANIMALS, ETC.
- Diaphragm, valves, *see* VALVES, ETC.
- Diazotization process and products, *see* CARBON COMPOUNDS, ETC.
- Dichloroacetanilide derivatives, *see* CARBON COMPOUNDS, ETC.
- Dielectric heating, *see* HEATING BY ELECTRICITY.
- Dielectric materials, *see* CONDUCTORS, ETC.
- Diethyl phenyl acetic acid esters, *see* CARBON COMPOUNDS, ETC.
- Digesters (closed heaters in which substances are disintegrated with liquids, *see* HEATING SYSTEMS, ETC.
- Digoxin solutions for therapeutic uses, *see* DISINFECTING, ETC.
- Di-imidazole, *see* CARBON COMPOUNDS, ETC.
- Digesters (closed heaters in which substances are disintegrated with liquids), ETC.
- Diphenylamides, substituted, *see* CARBON COMPOUNDS, ETC.
- Diquaternary compounds, *see* CARBON COMPOUNDS, ETC.
- Direction finders, radio, *see* WIRELESS, ETC.
- Discharge lamps, electric, *see* VACUUM, ETC.
- Discharge lamps, electric supply circuit arrangements for, *see* ELECTRIC SUPPLY, ETC.
- Discharge tubes, electric, *see* VACUUM, ETC.

DISINFECTING AND DEODORIZING, INCLUDING MEDICAL AND LIKE PREPARATIONS. XIX(1).

(This heading does not include washing bottles, sewage treatment and water purifying which are indexed in separate headings.)

- capsules, medical and the like, *see* Miscellaneous.
- culture media for production of penicillin, *see* Miscellaneous.
- Deodorants, fumigants, disinfectants and antiseptics. 59008.

Disinfecting—

- Air and gases, disinfecting. No case.
- Chambers and ovens for disinfecting by means of gases and vapours. No case.
- extracts, decoctions and infusion making, *see* DECOCTIONS, ETC.
- Miscellaneous—
 - Sterilizing powder material. 59008.

DISINFECTING AND, ETC.—contd.

Fumigating and vaporising for sanitary and like purposes. 56259.

herbicidal compositions, *see* Insecticides, etc.

insecticidal compositions, *see* Insecticides, etc.

insecticidal compositions containing cashew nut shell liquid, *see* Insecticides, etc.—Containing plant, etc.

Insecticides and vermin destroying compositions—

Containing plant extracts. 56418, 57658, 57739, 57821, 59224.

Other than containing plant extracts. 56291, 56302, 56433, 56526, 56537, 56543, 56660, 56661, 56724, 56726, 56788, 56925, 56995, 57005, 57054, 57112, 57113, 57151, 57152, 57167, 57236, 57400, 57418, 57567, 57574, 57576, 57594, 57645, 57660, 57739, 57784, 57816, 57818, 57821, 57890, 58003, 58065, 58430, 58507, 58547, 58703, 58705, 58760, 58810, 59023, 59043, 59109, 59220, 59224.

liver extract, *see* Medicines, etc. (Hormones, etc.)

Medicines and other pharmaceutical preparations (excepting drugs of distinct chemical composition)—

Anti-toxins, toxins, vaccines and immunising and like serums. 56490, 56914.

External remedies (other than anti-toxins, toxins, vaccines and serums).

56336, 56367, 56368, 56409, 56427, 56521, 56555, 56656, 56659, 56670, 56792, 56844, 56926, 56938, 57008, 57033, 57085, 57098, 57100, 57252, 57273, 57298, 57477, 57478, 57583, 57645, 57662, 57740, 57749, 57818, 57929, 57931, 57978, 57979, 57980, 57982, 58031, 58079, 58195, 58430, 58537, 58775, 58795, 58796, 58827, 58865, 58931, 58948, 59028, 59045, 59181, 59232, 59241.

Hormones and animal gland extracts. 56240, 57403, 57619, 57761.

Internal remedies (other than hormones, and animal gland extracts).

56336, 56367, 56368, 56409, 56423, 56421, 56521, 56539, 56555, 56585, 56623, 56624, 56633, 56655, 56656, 56659, 56670, 56780, 56792, 56839, 56844, 56926, 56938, 56990, 57008, 57033, 57034, 57036, 57047, 57085, 57098, 57100, 57129, 57273, 57331, 57344, 57368, 57477, 57583, 57645, 57672, 57691, 57740, 57796, 57818, 57931, 57969, 57978, 57979, 57980, 57982, 58001, 58031, 58079, 58195, 58196, 58338, 58430, 58449, 58488, 58501, 58537, 58625, 58773, 58775, 58795, 58796, 58827, 58865, 58885, 58931, 58948, 59028, 59045, 59110, 59181, 59232, 59241.

Miscellaneous—

capsules. 56398.

Coated pharmaceuticals. 58196.

Culture media. 59181.

Mutants. 57273.

Pressing loose boxes and the like. 58284.

Tablets. 57775.

Vials. 57396.

powdered nutritious matter from liver making, *see* Medicines, etc. (Hormones, etc.)

skin protective compositions, *see* Medicines, etc. (External, etc.)

DISINFECTING AND, ETC.—contd.

- tablets, pharmaceutical, *see* Miscellaneous.
- tablets making, *see* MOULDING PLASTIC, ETC.
- therapeutic compositions for injection, *see* Medicines. (Internal, etc.)
- vitamin, *see* CARBON COMPOUNDS, ETC.
- weed destroying compositions, *see* Insecticides, etc.

- Disinfecting attachment for closets, *see* CLOSETS, ETC.
- Dispensing predetermined quantities of liquids, *see* MEASURES OF, ETC.
- Dispensers for adhesive tape, *see* LABELS, ETC.
- Dispensing bottles, *see* STOPPERING, ETC.
- Dispersion, *see* CHEMICAL PROCESSES, ETC.
- Display devices, *see* ADVERTISING, ETC.
- Distance detecting devices, electric, *see* MEASURING AND TESTING, ETC.
- Distance, determining by radio, *see* WIRELESS, ETC.
- Distance detecting devices capital, *see* PHILOSOPHICAL, ETC.

DISTILLING AND EVAPORATING LIQUIDS. V.

*(This heading does not include liquefying and evaporating air and gases, *see* AIR AND GASES; DRYING SYSTEMS; GAS MANUFACTURE; carbureting, *see* INTERNAL COMBUSTION ENGINES; distilling metals, *see* METALS, EXTRACTING, and refrigerating systems, *see* COOLING.)*

Condensers, condenser systems, column stills and rectifiers, construction of (plants and processes other than for cracking and distilling hydrocarbons). 56432, 57917, 59084, 59130.

Cracking hydrocarbons. 56295, 56314, 56431, 56546, 56851, 57493, 58133, 58466, 59058.

Crystallising other than by evaporating. 56962, 59203.

Evaporators and evaporating systems (plants and processes, other than for cracking and distilling hydrocarbons). 56199, 56216, 58422.

Hydrocarbons, distilling without cracking (including pitch, resin oils and turpentine). 56225, 56226, 56461, 57327.

Hydrogenation, destructive, of coal, oils and like carbonaceous materials, obtaining liquids by. 56227, 57193, 57605, 57768, 59203.

liquids concentrating by evaporation, *see* Evaporators, etc.

petroleum distilling, *see* Hydrocarbons, etc.

Plants and processes not otherwise provided for. 56595, 56744, 57064, 57768, 57797, 58891.

sugar solutions concentrating by evaporation, *see* Evaporators, etc.

Disulphides, organic, *see* CARBON COMPOUNDS, ETC.

Diversity radio telegraph systems, *see* WIRELESS, ETC.

Dobbies, farlooms, *see* LOOMS.

Doffing mechanism, *see* SPINNING, ETC.

DOOR AND GATE OPERATING APPLIANCES, HINGES AND PIVOTS. LXIV(3).

(This heading includes means for opening, closing and controlling the operation of doors, gates, barriers of buildings, ships, vehicles and road and railway tracks.)

Door, window and like hinged articles, holders, stops and stays for (means for holding in open position independently of opening and closing means).

No case.

DOOR AND GATE, ETC.—contd.

Hinges and pivots. No case.

Holders for sliding doors, windows and like (means apart from operating means). No case.

Means for opening, closing and controlling operation of door, gate and barriers of buildings and vehicles. 59261.

window opening and closing apparatus, *see* Means for opening, etc.

DOORS AND WINDOWS AND THEIR ACCESSORIES. XXVI(3).

*(This heading includes doors and windows for buildings, vehicles and like structures only. For coke oven doors, *see* COKING, ETC.; for furnace doors, *see* FURNACES, ETC.)*

Accessories—

Draught and dust excluders. No case.

Windows and like guards. No case.

window opening and closing apparatus, *see* DOOR AND GATE, ETC.

Door and door frames. No case.

window blinds, *see* FURNITURE.

Window shutters. 57894.

Windows, fan lights and roof lights (including miscellaneous, transparent sheet materials but not window shutters). 57164.

Doubling and twisting yarns, *see* SPINNING, ETC.

Doubling threads or fibrous strands, *see* SPINNING, ETC.

Draft gear for railway vehicles, *see* RAILWAY, ETC. VEHICLES, ETC.

Drafting textile fibres, *see* SPINNING, ETC.

DRAINS AND SEWERS. II(2).

Conduits, culverts and sewers. No case.

Drainage and sewerage. No case.

Drawing and painting, special appliances for leaching, *see* WRITING, ETC.

Drawing frames for, textile roving, *see* SPINNING, ETC.

Drawing metals, *see* METAL WORKING.

DRESS AND DRESS FASTENINGS. LXVI(3).

Belts, equipments and other straps for personal wear, braces and suspenders. 57731, 57732, 58926.

bracelets, *see* JEWELLERY.

buttons and button fasteners, *see* Fastenings, etc.

collars for garments, *see* Wearing apparel, etc.

coupling or fastners for airman's harness, *see* Belts, etc.

cuffs, *see* Wearing, etc.

Fastenings, dress (other than belts braces and suspenders). 56420, 56421, 57369, 57392, 58365, 58366, 58393, 58467, 58534, 59054.

garments lengthening elements for, *see* Wearing, etc.

gloves and like hand coverings, *see* Miscellaneous.

Hats and head coverings. 37137.

hook and dress fastenings, *see* Fastenings, etc.

Miscellaneous—

cotton supports. 57867.

Gloves and other coverings. 57625, 57626, 57627.

neck-ties, bowes, *see* Wearing, etc.

DRESS AND DRESS, ETC.—contd.

parachute harness, *see* Belts, etc.

pleating, corrugating wearing apparel, *see* Miscellaneous.

shrouds, *see* Miscellaneous.

sleevelinks, *see* Fastenings, dress, etc.

slide fasteners for dresses, *see* Fastening, dress, etc.

studs, *see* Fastenings, dress, etc.

supports for collars, *see* Miscellaneous, etc.

Trouser and garment protectors, presses and like. No case.

watch bracelets, chains, guards or protectors, *see* Fastenings, etc.

Wearing apparel including tailoring and dress making. 56265, 56676, 56757, 56758, 56915, 56916, 57736, 57737, 57738, 57950, 58594, 59185.

Drilling and slotting fixtures, *see* METAL WORKING.

Drilling apparatus, *see* MINING, ETC.

Drilling and boring earth, *see* MINING, ETC.

Driving and transmission, arrangement and disposition of in motor vehicle. *see* MOTOR VEHICLES.

Dry cells, electric, *see* BATTERIES, ETC.

DRYING SYSTEMS AND APPARATUS (EXCEPTING CENTRIFUGAL MACHINES; DISTILLING, ETC.; STEAM SUPERHEATERS; HEATING SYSTEMS). VIII.

(Removing water from liquid-chemicals by treatment with chemical elements and compounds is indexed under only the headings for chemicals treated.)

Air and gases used for drying, regulating flow and condition of. 56830, 57394, 57395, 57535, 57846.

apparatus for withering tea in stages not using endless belts, or moving trays, *see* Systems, etc.

Apparatus in which articles and materials are dried at rest or locally agitated. 57441, 59203.

Charging, feeding and discharging devices. No case.

Desiccants and absorbents. No case.

Drying air and gases. 56206.

Endless band, moving tray and like travelling apparatus. No case.

Heating apparatus, arrangement of. 57395.

Miscellaneous—

 Drying textile fabrics. 58034.

Rotating, shaking, oscillating and otherwise moving containers or drums. No case.

Supports for articles and materials (excepting endless bands), construction of. No case.

Systems in which materials are dried by progressive movement other than endless band and rotating containers. 57217, 57394, 57395, 57536, 57822, 57992.

trays, stationary, for withering of tea leaf, *see* Apparatus, etc.

Duplicating machines, *see* PRINTING.

Duplicating or copying documents and like, *see* PRINTING.

Dust collectors or depositing chambers, *see* AIR AND, ETC.

Dust guards for bearings, *see* BEARINGS, ETC.

Dyed relief records forming of by photographic developing and other treatment, *see* PHOTOGRAPHY.

DYEING, BLEACHING, WASHING AND LIKE TREATMENT OF TEXTILES AND TEXTILE MATERIALS WITH LIQUIDS AND GASES. XXII(1).

(Apparatus for applying liquids by single passage of material under a single roller or for applying size and other viscous liquids are indexed under PROOFING.)

Bleaching and washing textiles, process and materials for (other than washing, laundry and domestic)—

Other than by the use of oxidising and reducing agents. 57689, 58154.

Oxidising agents, by the use of. 57533, 57534, 57688, 57967, 59037.

Reducing agents, by the use of. No case.

bleaching of cotton yarns, *see* Bleaching, etc. (Oxidising, etc.).

cellulose fibres, treating with softening agents, *see* Treating textiles, etc.

clothes wingers, *see* Washing, etc.

desizing yarns or fabrics, *see* Bleaching, etc. (other than, etc.).

Dyeing, bleaching and washing otherwise treating textiles with liquids, and gases, apparatus for (other than for washing domestic and laundry). 56815, 56832, 57017, 57510, 58238, 59029, 59037.

hydrogen peroxide bleaching, *see* Bleaching and washing oxidising agents, etc.

Processes and materials for dyeing textiles and other fibrous materials—

Dyeing by processes other than forming on the material, mordant and vat dyeing. 56201, 56209, 56325, 56945, 57017, 57216, 58475.

Dyes, forming and developing on the material (other than stable preparations of diazo compounds). 56286, 56410, 58013, 58164, 58250, 58624.

Mordant dyes, dyeing with. 58687.

Vat and sulphuretted dyes, dyeing with. 57108, 57778, 57973, 58014.

scouring yarns or fabrics, *see* Dyeing, etc.

textile materials heating with liquids to improve resistance to creasing, *see* Treating, etc.

Treating textiles with liquids and gases, other than for bleaching, dyeing and washing and proofing. 56439, 56485, 56940, 57156, 57319, 57326, 57824, 57895, 57902, 58154, 58576, 58577, 58714, 58767, 59029, 59030, 59031, 59032, 59033, 59037, 59120, 59125, 59126.

Washing, mangling, ironing and starching clothes. domestic and laundry. 56824, 56825, 56979, 57146.

Dyeing jiggers, *see* DYEING, ETC.

Dyeing processes, *see* DYEING, ETC.

Dyestuffs, *see* CARBON COMPOUNDS, ETC.

DYNAMO-ELECTRIC MOTORS AND GENERATORS. LVII(1).

Alternating current machines, general design of—

Commutator machines. 58232, 58600.

Induction machines. 56967, 57037.

Machines other than commutator and induction. 56714, 58928.

alternator field supply system, *see* Miscellaneous.

Armatures, cores, laminations and windings, details of. 56378, 56967, 57687, 57695, 58493, 58582, 58725, 58740, 58995, 59208.

Brushes, commutators and collectors, details of. 56855, 57646, 58012.

Casings, frames, and supports, details of. 56238, 57717, 58569.

commutators, *see* Brushes, etc.

contact holders, brush and like, *see* Brushes, etc.

DYNAMO-ELECTRIC, ETC.—contd.

Cooling and ventilating systems for dynamo-electric machines. 56469, 56855, 57612, 58582, 58895.

demagnetising apparatus, *see* Electromagnet, etc.

Direct current machines, general design of. No case.

Driving, arrangements of. 57010, 57290, 58075.

Electromagnets and magnets permanent, construction of. 56406, 56856, 56907, 57204, 57985, 58046, 58047, 58347, 58735, 59005, 59099, 59218.

generator driving arrangements, *see* Driving, arrangements of.

induction motors, rotors of, *see* Armature, etc.

lifting grabs electrically operated, *see* LIFTING, ETC.

magnetic circuits or cores for, *see* Armatures, etc.

magnetic materials, *see* Electro magnets, etc.

magnetisable sheet metal, treating of, *see* ANNEALING, ETC.

magnets permanent, construction of, *see* Electromagnets, etc.

Miscellaneous—

Reciprocating motors. 56881.

Supply for alternator field. 57297.

motor generator, *see* Rotary, etc.

mounting of stators in alternating current machines, *see* Alternating, etc. (Induction, etc.)

recording magnetically on magnetisable materials, *see* PHONOGRAPHS, ETC.

Rotary converter and transformer systems. 58174.

rotors of alternating current machines, *see* Armatures, etc.

squirrel case rotors, *see* Armatures, etc.

stator construction, other than details of cores laminations and windings, *see* Casings, etc.

stators, *see* Armatures, etc.

synchronous generators, *see* Rotary, etc.

winding conductors on armatures of motors, machines for, *see* Armatures, etc.

E

Earth ripping implement, *see* AGRICULTURAL, ETC.

Electric, *see* ELECTRIC BATTERIES, ETC.

Electric arc welding, *see* METAL WORKING, ETC.

Electric battery lamps, *see* ELECTRIC LAMPS, ETC.

Electric cables, *see* CONDUCTORS, ETC.

Electric capacitors, *see* CAPACITANCES, ETC.

Electric circuit breakers, *see* ELECTRIC SWITCHES, ETC.

Electric clocks, *see* CLOCKS, ETC.

ELECTRIC COUPLINGS AND CUT-OUTS OTHER THAN ELECTRO-MAGNETIC AND THERMAL. LVIII(4).

couplings for cables and wires. *see* Electric couplings. (Couplings, etc.)

Cut-outs (other than electromagnetic and thermal). 57289, 57634, 58558, 58901

ELECTRIC COUPLINGS, ETC.—contd.**Electric Couplings—**

- Couplings other than plug and socket and like and junction boxes, etc. (including rod and wire couplings). 56338, 56638, 56685, 56855, 56917, 57228.
- Junction, inspection, test and distribution boxes, ceiling roses. 57733, 59167.
- Plug and socket and like two-part readily removable couplings. 56682, 56834, 57097, 57868, 58632.
- fuse boxes, *see* Cut-outs, etc.
- fuses, *see* Cut-outs, etc.
- joint, permanent, between electric cables, *see* Electric, etc. (Couplings, etc.)
- junction boxes, *see* Electric couplings. (Junction, inspection, etc.)
- mountings arrangements for electric equipments, *see* Electric, etc. (Junction, etc.)
- plug and socket type couplings, *see* Electric, etc. (Plug and, etc.)
- socket connectors, *see* Electric, etc. (Plug and, etc.)

ELECTRIC CURRENTS CONVERTING AND TRANSFORMING OTHER THAN BY ROTARY CONVERTERS AND ROTARY TRANSFORMERS. LVII(2).

- arc converters, *see* Converting, etc. (Arch, etc.)
- breathers for transformers, *see* Transformers. (Bases, cases, etc.)
- compensator for transformers, *see* Transformers, etc. (Regulating, etc.)
- Converting alternating and direct—
- Arc, spark-gap and other discharge producing apparatus (including vapour and vacuum apparatus), by arrangement of. 58991, 59186.
- By varying resistance, inductance and capacity (including arrangements of electrolytic and contact rectifiers). 56751, 56872, 57836, 58033, 58288.
- Commutator switching arrangements. No case.
- Systems of conversion other than Arc, etc.; By varying resistance, etc.; and Commutator, etc. No case.
- demiconductors for crystal rectifiers, *see* Converting, etc. (By Varying, etc.)
- dry contact rectifier, *see* Converting, etc. (By carrying, etc.)
- magnetic circuits or cores for transformers, *see* Transformers. (Cores, etc.)
- semi-conductors or crystal rectifiers wireless circuits, utilising, *see* WIRELESS, ETC.
- Transformers—
- Bases, cases and cooling and ventilation arrangements. 59216.
- Cores, armatures and winding. 57202, 58621, 58725.
- Regulating and constructional arrangements other than Cores, etc.; Bases, etc. 56817.
- Electric discharge devices, *see* VACUUM, ETC.
- Electric discharge lamps, *see* VACUUM, ETC.
- Electric discharge lamps, holders for, *see* VACUUM, ETC.
- Electric discharge tubes, *see* VACUUM, ETC.
- Electric distant controlled systems, *see* ELECTRIC SIGNALLING, ETC.
- Electric fans, centrifugal and screw, *see* CENTRIFUGAL, ETC.
- Electric furnaces, *see* HEATING BY, ETC.

ELECTRIC LAMPS, INCANDESCENT AND ARC. LXIII(1).

(This heading does not include shades, reflectors and globes for which see LAMP CHIMNEYS.)

Arc lamps. 57578.

Battery lamps. 56347, 56550, 58961.

capless bulbs, *see* Incandescent lamps, etc. (Forms, etc.)

contact-carrying element for electric lamps, mounting of, *see* Incandescent, etc. (Mounting parts, etc.)

Dynamo lamps. No case.

electric battery lamps, *see* Battery, etc.

filaments for incandescent lamps, *see* Incandescent, etc. (Materials for filaments, etc.)

Incandescent lamps, construction of—

Caps for bulbs (including connecting to bulbs). 56630, 57404.

Filaments, supports for (other than leading-in-wires). No case.

Forms and materials of bulbs and gases used. 57772, 58212.

Holders. 56547.

Leading-in-wires. 58212.

Materials for filaments, their form, shape and arrangement of. 57291.

Miscellaneous—

Applying light diffusing layers. 58713.

Mounting parts in and closing bulbs (other than attaching filaments to leading-in-wires). 56564, 57772.

Multiple filament lamps and variable connections. No case.

Reflectors and screens within bulbs. No case.

Renewing and repairing. No case.

motor car, lamps for, *see* Battery lamps.

terminals, *see* Incandescent, etc. (Caps, etc.)

torches, *see* Battery, etc.

Electric motors, *see* DYNAMO-ELECTRIC, ETC.

Electric motors, driving and control equipments for, *see* MOTOR CONTROL. ETC.

Electric pulse generating circuits, *see* WIRELESS, ETC.

Electric pulse translators, *see* ELECTRIC SIGNALLING, ETC.

ELECTRIC SIGNALLING SYSTEMS AND APPARATUS. OTHER THAN TELEGRAPHS AND TELEPHONES. LI(2).

Annunciators or indicators and alarm, (fire, police and like systems). 58887.

Non-selective signalling systems. No case.

remote control systems, *see* Selective, etc.

Selective signalling and distant control systems (comprising means for transmitting or receiving a choice of signals or effects). 56245, 56326, 56588, 56650, 56672, 56750, 56899, 56951, 57204, 57402, 57506, 57599, 57847, 57848, 57987, 58016, 58032, 58158, 58215, 58291, 58360, 58562, 58887, 59153, 59246.

ELECTRIC SUPPLY AND TRANSMISSION SYSTEMS AND APPARATUS. LVII(3).

balancing supply system voltages, *see* Systems, etc.

battery charging system *see* Charging, etc.

ELECTRIC SUPPLY AND, ETC.—contd.

- boosting, *see* Systems, etc.
- carbon pile regulators, *see* Systems, etc.
- Charging and controlling storage batteries. 56550, 59024.
- circuit arrangements for electric discharge lamps, *see* System for supplying, etc. (System, etc.)
- Conductors, arrangement and utilisation of for transmission and distribution and for installation wiring. 57228, 58329.
- discharge lamps, circuit arrangement for, *see* Systems, etc. (Systems for vacuum, etc.)
- driving electric motor, power supply equipment for, *see* Electromechanical, etc.
- dynamos and motors combined for transmitting power, *see* Electromechanical, etc.
- electromagnets suitable for carbon pile regulators, construction of, *see* DYNAMO-ELECTRIC, ETC.
- Electromechanical and electric systems for transmitting mechanical power. 58792.
- equalisation of potential and current, *see* Systems, etc.
- Protective arrangements (other than those with automatic circuit breakers or other safety switches). 56635, 59262.
- synchronising generators and/or supply systems, automatically, *see* Systems, etc. (Automatic, etc.)
- synchronous generators for maintaining constant voltage in power supply systems, *see* DYNAMO-ELECTRIC, ETC.
- system for feeding electrical discharge tubes, *see* Systems, etc. (Systems for, etc.)
- Systems for supplying and controlling consuming devices (other than motive power plant and storage batteries)—
 - Automatic systems of regulation. 56466, 56760, 56801, 57755, 58038, 58445, 58734, 58736, 58737.
 - Non-automatic systems of regulation. 56588, 57019.
 - Systems for vacuum discharge apparatus. 57308, 57309, 57480, 58337, 58811.
- systems of wiring, *see* Conductors, etc.
- voltage regulators, automatic, *see* Systems, etc. (Automatic, etc.)

ELECTRIC SWITCHES AND ELECTROMAGNETIC AND THERMAL CUT-OUTS (EXCEPTING SELECTOR SWITCHES FOR TELEPHONES). LIX(1).

- air-break circuit breakers, *see* Oil-break, etc.
- Automatic circuit breakers and other switches tripped or released by electrical means re-set by hand or by power, and retained set against the action of springs of gravity. 56202, 57306, 57307, 57964, 57965, 58404, 58405, 58617, 58707, 59184.
- circuit breakers automatic, *see* Automatic, etc.
- clamps for mounting electrical equipments, *see* FASTENINGS, ETC.
- contact making relays, *see* Electromagnetic, etc.
- contact members, *see* Switch bases, etc.
- contacts, construction of, *see* ELECTRIC SWITCHES, ETC.
- cross bar multi switches for telephones, *see* TELEPHONES, ETC.
- Cut-outs or protective systems with safety switches and cut-outs controlled by variations in the conditions of the circuit. 56230, 56576.

ELECTRIC SWITCHES, ETC.—contd.

- distribution boards with detachable circuit breakers, *see* Switch boards, etc.
- Electrolytic interrupters. No case
- electromagnet, *see* DYNAMO, ETC.
- Electromagnetic and magnetic switches (other than automatic circuit breakers tripped, etc., and cut-outs or protective systems with safety switches, etc.). 57023, 57373, 57961, 58368, 58967.
- Make and break switches, mechanical, adapted for continuous operation. 57032.
- Mechanical switches, inert without spring (including switches operated by tilting, by vibration or by gravity). No case.
- Mechanical switches, retained set, against quick action spring or gravity return, by batches, overset parts and friction grip and other mechanical devices. 58707
- Mercury and other conducting liquid switches. 56253.
- Miscellaneous—
 - Control elements. 58638.
 - Electric components with concentric shafts. 56273.
 - Piezodynamic relays. 58655.
 - Speed responsive switches. 57448.
- Momentary contact switches (mechanical switches which in single stroke of operating member make and break a circuit once or a definite number of times). No case.
- Oil-break, airbreak and other high temperature and heavy current switches. 56307, 57292, 58274, 58555, 58691.
- Press-button and other mechanical switches which retract upon removal of operating force. No case.
- relays, electromagnetic, *see* Electromagnetic, etc.
- Snap-action switches (springs, during a single "on" and "of" operation, are first strained and then relaxed to assist or to produce switching movement). No case.
- Spark-preventing and arc-rupturing devices. 58555, 59184.
- speed responsive switches not covered by other sub-classes, *see* Miscellaneous.
- Switch bases, covers, cases and contact members, constructions of. 56463, 56621, 56866, 57208, 57288, 57292, 57646.
- Switch-boards and equivalent switch-gear structures. 56493, 57019
- Thermal switches, cut-outs and interrupters. 56576, 58707.
- wall boxes for switches, *see* Switch bases, etc.
- Electric traction motors, mounting of, *see* RAILWAY, ETC., BODY, ETC.
- Electric traction systems, *see* RAILWAY, ETC., PERMANENT, ETC.
- Electric transducers for measuring strain, *see* MEASURING AND, ETC.
- Electrical conductors, *see* CONDUCTORS, ETC.
- Electrical induction heating systems, *see* HEATING BY ELECTRICITY.
- Electrical overheat protection devices, employing safety switches, *see* ELECTRIC SWITCHES, ETC.
- Electric resistance furnaces, *see* HEATING BY ELECTRICITY.
- Electrodes for accumulators, electric, *see* BATTERIES, ETC.
- Electrodes for welding apparatus, *see* METAL WORKING.
- Electrolysis cells for, *see* ELECTROLYSIS.
- Electro-luminescent devices, *see* VACUUM, ETC.

ELECTROLYSIS AND ELECTRIC-DEPOSITION. LVIII(5).

Cells receptacles and apparatus, other than diaphragms and electrodes.
57552, 57707, 57983.

Diaphragms and electrodes, forms, construction and mounting of. 56948,
57407, 57983, 58240.

electro dialysers, cells for, *see* Cells, etc.

electrodes and separators, *see* Diaphragms, etc.

electrolysis bath for refining aluminium, *see* Processes. (Metals, etc.)

etching electrolytically, *see* Processes. (Miscellaneous.)

furnaces for fused salt electrolyses, *see* Cells, etc.

Processes—

Electro-osmotic. No case.

Fused electrolytes, metals, obtaining from. 56370, 56960, 57552, 57983,
58520.

Liquids, treating for purifying and like purposes. No case.

Metals and alloys, obtaining and depositing from aqueous electrolytes.
56975, 57115, 57200, 57524, 57586, 57587, 58224, 58299, 58353, 58384,
58946, 59250.

Miscellaneous—

Anodic coating on aluminium. 58137.

Cuprous oxide. 58352.

Electrolytic etching. 58233.

Metallic oxides preparing, etc. 56532.

Non-metallic substances, obtaining and depositing. 57129.

Organic solutions treating (other than liquids treating for purifying).
No case.

Electrolytes, *see* ELECTROLYSIS, ETC.

Electrolytic capacitors, *see* CAPACITANCES, ETC.

Electrolytic cells, *see* ELECTROLYSIS, ETC.

Electrolytic process, *see* ELECTROLYSIS, ETC.

Electromagnetic relays, contact making, *see* ELECTRIC SWITCHES, ETC.

Electromagnets, *see* DYNAMO-ELECTRIC, ETC.

Electron discharge tubes, *see* VACUUM, ETC.

Electronic calculating apparatus. *see* CALCULATING, ETC.

Electronic computers, *see* CALCULATING, ETC.

Electronic switching system, *see* ELECTRIC SIGNALLING, ETC.

Electroplating, *see* ELECTROLYSIS, ETC.

Electrostatic separators, *see* MAGNETIC, ETC.

Elevator conveyors, *see* LIFTING, ETC.

Elevators or lifts, *see* LIFTING, ETC.

Emery paper, *see* POLISHING, ETC.

Emulsion other than bituminous, *see* CHEMICAL PROCESSES, ETC.

End sealing of cables, *see* CONDUCTORS AND, ETC.

Endless belt conveyors, *see* LIFTING LOADING, ETC.

Epicyclic gearing, *see* MECHANISM MISCELLANEOUS.

Esters, *see* CARBON COMPOUNDS, ETC.

Etching, *see* PRINTING, ETC.

Ethylene dichloride, *see* CARBON COMPOUNDS, ETC.

Ethylene polymers. *see* CARBON COMPOUNDS, ETC.

Evaporation systems, *see* DISTILLING, ETC.

EXCAVATING. XXVIII(1).

(*Excepting AGRICULTURAL implements, Boring earth and rock.*)

Blasting. No case.

coal cutting machines with rotary chipping heads, *see* 'Digging', etc.

coal mining plough including cutting edge, wedge and a roller type cutter, *see* Digging, etc.

Digging, picking, channelling and slitting apparatus (including rotary scrapers), other than agricultural implements. 56822, 57667, 58180, 58205.

Discharging soil. No case.

Endless chain machines. 56471.

Grab and scoop-arm machines. 57795.

Hydraulic mining and scouring apparatus (including methods in which water breaks away the ground; jet apparatus and sinking caissons, piles, and shafts by jetting). 57523.

Miscellaneous—

Breaking with compressed gases. 57924.

Coal cutting machines details not covered by other sub-divisions. 57667, 58110.

scrapers, *see* Digging, etc.

travelling apparatus for disturbing surface soil, *see* AGRICULTURAL, ETC.

Exchanges, telephones, *see* TELEPHONES, ETC.

Exploring or prospecting apparatus, electric and magnetic, *see* MEASURING AND, ETC.

Exploring or prospecting apparatus, other than electric and magnetic, *see* MINING, ETC.

Explosive compositions, *see* EXPLOSIVES, ETC.

EXPLOSIVE AND PYROTECHNICS. XXXIX(3).

Explosive materials and compositions, containing liquid air or liquid oxygen. No case.

Explosive materials and compositions, other than containing liquid air or liquid oxygen. 56632, 57990, 57991.

Miscellaneous—

Bombs releasing from aircrafts. 58788.

Pyrotechnic apparatus and pyrophoric and flash light compositions and ribbons. No case.

Extract, tea, decoctions and infusion making, *see* DECOCTIONS, ETC.

Extracting fibres from plants mechanically, *see* SPINNING, ETC.

Extracting metals, *see* METALS EXTRACTING, ETC.

Extruding and moulding plastic substances, *see* MOULDING, ETC.

Extruding metal, *see* METAL WORKING.

Extrusion presses for moulding plastic, *see* MOULDING PLASTIC, ETC.

Eyes for ropes and cables, *see* ROPES, ETC.

F

FABRICS, FINISHING AND TESTING. XXII(2).

57147, 57222, 57993.

FABRICS, WOVEN. XXI(1).

56255, 56453, 56563, 57017, 57933, 58109, 58785, 59071.

Facsimile system, *see* TELEGRAPHS, ETC.

FABRICS, ETC.—contd.

Facsimile transmitters, *see* TELEGRAPHS, ETC.

False twisting device, in spinning machines, *see* SPINNING, ETC.

FARES AND ADMISSION FEES, CHECKING AND SPEED INDICATORS. XLI(5).

56937, 57527, 57928, 58598, 58599.

Fastenings dress, *see* DRESS, ETC.

FASTENINGS, MISCELLANEOUS. LXIV(4).

(Comprising only connections of a temporary character, readily releasable and not forming part of structures secured. This heading does not include bale tie fasteners, BOLTS; CHAINS; DOOR AND GATE OPERATING APPLIANCES; DRESS FASTENINGS; LOCKS; NAILS AND ROPES AND CORDS.)

Automatically operated railway carriage door fastenings. No case.

Clips and clamps. 56730, 58371, 58450.

clips for shuttering panels, *see* Clips, etc.

clips for tenting machine, *see* FABRICS FINISHING, ETC.

Doors and windows, special fastenings for, not covered by other subdivisions. 57195, 58198.

fastener, interlocking links provided with, *see* Miscellaneous, etc.

Hasp and like hinged and pivoted fastenings. No case.

latches, safety, *see* Sliding, etc.

Miscellaneous—

Sliding clasp fastener. 58393.

Turn-buckles. 58875.

Multiple fastenings. No case.

Operated or controlled from distance. No case.

seal blanks for forming a seal, *see* Seal, fastenings.

Seal fastenings. 56237, 56566, 57129.

Sliding bolts and latches. 56566, 56722, 56910.

Stud or ball and eye or socket fastenings. No case.

tower bolts and the like, *see* Sliding bolts, etc.

turn buckles, *see* Miscellaneous.

FATS AND FATTY OILS (EXCLUDING BUTTER AND THE LIKE). XI(1).

(Steps in the production of fats and fatty oils involving improvements in connection with aerating, cooling, crushing and grinding, distilling, drying, filtering, mincing, mixing, moulding and preserving are indexed under headings denoting such operations.)

animal or vegetable oils, neutralisation of, *see* Purifying, etc.

Compositions containing fats and fatty oils and drying oils. 56465, 58112.

degasifying liquids, *see* CHEMICAL PROCESSES, ETC.

expressing oils from seeds by exposure to heat produced by microwaves, *see* Extracting, etc. (By pressure.)

Extracting and obtaining (other than recovering from waste products)—
By pressure. 56350, 57056.

By solvents. 56350, 56389.

Hydrogenated and modified fats and fatty oils. No case.

FATS AND FATTY OILS, ETC.—contd.

Purifying. 56859, 57460, 58376.

fatty acids, *see* CARBON COMPOUNDS, ETC.

Recovering from waste products. No case.

refining fats and oils, *see* Purifying, etc.

synthetic oils mixed with natural drying oils, *see* Compositions, etc.

Feed for ruminants, *see* ANIMALS, ETC.

Feeders for textile machinery, *see* SPINNING, ETC.

Feeding webs to machine, *see* WEBS.

Feedrate of yarn, regulating, *see* SPINNING, ETC.

Feed water for boilers, supplying and controlling *see* 'STEAM-GENERATORS'

FENCING, TRELLIS AND WIRE NETTING. XXVII(2).

57814.

Ferro-alloys, *see* ALLOYS, ETC.

Ferro-electric crystals, wireless, *see* WIRELESS, ETC.

Ferro-electric systems for controlling electric signals, *see* ELECTRIC SIGNAL-
LING.

Ferrophosphorus, *see* ALLOYS, ETC.

Fertilizers, *see* MANURES, ETC.

Fertilizers, distributing, *see* AGRICULTURAL, ETC.

Fertilizers, distributing and seeds planting, *see* AGRICULTURAL, ETC.

Fibers, glass *see* GLASS, ETC.

Fibers extracting from plants by mechanical means, *see* SPINNING, ETC.

Fibres of organic material, *see* CELLULOSE, ETC.

Fibres polyester, optical brightening of. *see* DYEING, ETC.

Fibres pulping, *see* PAPER.

Fibres, treating with aminoplast resin, *see* PROOFING, ETC.

Fibrous material grinding or pulverising, *see* GRINDING, ETC.

Fibrous materials coating with liquid and plastic materials, *see* PROOFING,
ETC.

Filament, synthetic winding of, *see* SPINNING, ETC.

Files or binders, loose leaf, *see* FILING PAPER, ETC.

FILING PAPER AND LIKE SHEETS. XLII(3).

56552, 56553, 57370, 57643, 59257.

Film feeding and winding systems for cinematographic projectors, *see* CINE-
MATOGRAPHY.

Films, non-fibrous cellulose, *see* CELLULOSE, ETC.

Filtering air and gases to remove dust and solid particles, *see* AIR AND
GASES, ETC.

FILTERING AND STRAINING LIQUIDS. VI.

Block filters (comprising apparatus in which filtering materials consist of
earthenware, stone and other rigid porous materials and compositions).
58701.

Filter and contact beds. 56471.

Filter presses. 56520.

filters having rotating scrapers and defusing devices, *see* Moving, etc.

Filters with loose filtering materials (other than filter and contact beds).
56711, 57580, 58802.

FILTERING AND STRAINING, ETC.—contd.

Media, filtering. 56561, 56587.

Moving filters (including centrifugal filters). 57218, 58469.

Presses for separating liquids from solid by compression. 56586.

scraper means arranged in connection with a strainer surface, *see* Strainers, etc.

Separating liquids from liquids, solids and mixtures by gravity only. apparatus for. 57058.

Strainers and filters having sheet filtering materials (including grids and gratings but not rigid porous materials). 57447, 57449, 58469, 58992.

Tube well strainers and like (strainers on pipes). No case.

Unclassified types of filters—

Collecting fine particles floating in liquids. 57948.

Liquid filtering. 58860.

Water filtering. 56686.

FIRE EXTINGUISHING AND PREVENTING. XXXIX(4).

57053.

FISH AND FISHING. XIV(4).

No case.

Flame cutting of metals, *see* METAL WORKING.

Flame-proofing compositions and materials, *see* PROOFING, ETC.

Flame traps for general application, *see* FIRE EXTINGUISHING, ETC.

Flame traps for internal combustion engines, *see* INTERNAL COMBUSTION. ETC.

Flaps of Clothing fastening, *see* DRESSES, ETC.

Flattening rice, *see* GRAINS AND SEEDS, ETC.

Flavouring food, *see* FOOD, ETC.

Flexible hose for conveying fluid, *see* PIPES AND JOINTS.

Floating docks, *see* HYDRAULIC ENGINEERING, ETC.

Flom mills, *see* GRINDING, ETC.

Floors, *see* BUILDING, ETC.

Fluid actuated valves, *see* VALVES, ETC.

Fluid control valves, *see* VALVES, ETC.

Fluid heating apparatus, *see* HEATING SYSTEMS, ETC.

Fluid operated brakes, *see* BRAKES, ETC.

Fluidized solids beds for carrying out chemical reactions, *see* CHEMICAL PROCESSES.

Fluids dispensing and delivering by coin and cheque freed apparatus, *see* COINFREED, ETC.

Fluorescent compositions, *see* LUMINESCENT, ETC.

Fluorescent tubes, *see* VACUUM, ETC.

Fluorine, *see* NON METALLIC ELEMENTS.

Flushing apparatus for water closets, *see* CLOSETS, ETC.

Flushing cisterns, *see* CLOSETS, ETC.

FOOD PREPARING AND PRESERVING. XIV(5).

This heading does not include tea and like preparations and substitutes. Steps in the process of food production such as bottling, concentrating or distilling, cutting or mincing, drying, emulsifying, filtering, flavouring, grinding, mixing, moulding, and packing are indexed under headings denoting such operations.)

food for animal, *see* ANIMALS, ETC.

Food preparations—

Cereals, vegetable, fruit, and confectionary. 56502, 57955.

Diary food. 56465, 58200, 58679, 58680, 58807, 59006.

Meat, fish and eggs. 56324, 58807. .

Yeast and yeast extracts. No case.

Food preserving, sterilising and conditioning—

By cooling and cold storage. No case.

By gases and vapours. No case.

By heating, cooking or drying. 56324.

By treating with liquid preservatives. 57268.

Miscellaneous—

Flavaring substances for food. 56971.

With ultrasonic vibrations. 58392.

Storage receptacles and chambers. No case.

for animal, *see* ANIMALS, ETC

milk, treating with ultrasonic frequency vibration, *see* Miscellaneous.

milking machines, *see* Food preparations. (Diary, etc.)

Footwear, *see* BOOTS, ETC.

Forging metal, *see* METAL WORKING.

Foundations for buildings and structures other than sub-aqueous, *see* BUILDINGS, ETC.

Fountain pens, *see* WRITING APPLIANCES.

Fountains, *see* HYDRAULIC ENGINEERING.

Frame for railway trucks. *see* RAILWAY, ETC., VEHICLE, ETC.

Frame work for a textile machine, *see* SPINNING, ETC.

Frames, spinning, *see* SPINNING, ETC.

Fuel compositions, *see* FUEL, ETC.

Fuel feeding to furnaces, *see* FURNACES.

FUEL MANUFACTURE OF. XXXII(2).

(*Excepting COKING, AND GAS MANUFACTURE.*)

Gaseous fuel. 56651, 56781.

hydrocarbon oil fuel, *see* Liquid fuel, etc.

Liquid fuel preparations (other than solidified and gelatinised oils). 56380, 56505, 57113, 58101, 58216, 59012.

Solid and powdered fuels (other than solidified and gelatinised oils)—

From various forms of carbon (comprising coal, lignite, carbonaceous shales, coke, charcoal and soot). 56221.

Other than from various forms of carbon. No case.

Solidified and gelatinised oil fuels. No case.

Fumes treating or removing in steel making processes, *see* IRON, ETC.

Fungicidal composition, *see* DISINFECTING, ETC

FUELS AND MANUFACTURES—contd.Fungicides, *see* DISINFECTING, ETC.Furan derivatives, *see* CARBON COMPOUNDS, ETC.**FURNACES AND KILNS. XXXI.***(Excepting BURNERS, and STOVES, Converters, metallurgical are indexed under IRON AND STEEL, ETC.)*

Air heating furnaces. No case.

air supply draught regulating, *see* Miscellaneous, etc.arches, walls for melting furnaces, *see* Casings, etc.

Casings, walls, arches and roofs. 57814, 58027.

Charging, discharging and fuel feeding. 57043, 57044, 57312, 57408, 58426.

Crucibles and melting pot furnaces. No case.

cyclone furnaces, *see* Miscellaneous, etc.cyclone furnaces using liquid fuel, *see* Liquid, etc.

Doors, lids, door frames and furnace fronts. No case.

Firebars, grates, fire-bridges and ash-pans. No case.

furnaces, electric, *see* HEATING BY ELECTRICITY.furnaces for burning pulverized coal, *see* PULVERISED FUELS, ETC.furnaces for drying tea, *see* DRYING, ETC.

Furnaces of miscellaneous type—

Glass melting furnace. 58210, 58580, 58581.

Heat-treatment furnaces. 56924.

Soaking pit furnaces. 57420.

glass melting and refining furnace, *see* Furnaces, etc.

Kilns, brick, pottery and like and tunnel furnaces. 57744, 58878.

Liquid and gaseous fuel combustion apparatus. 56924, 57572.

Miscellaneous—

Arrangement of burners. 57420.

Cooling materials discharged from furnaces. 59174.

Cyclone furnaces. 56980.

Draught controlling, etc. 57043, 57044.

preheaters in combination with cement kiln, *see* Kiln, etc.

Pulverised fuel combustion apparatus. 59009.

refractory substances for furnace linings, *see* CEMENT, ETC.

Refuse, consuming and destructor furnaces. No case.

Regenerators and regenerative fittings for furnaces. 56808.

Retort furnaces (excepting coke-ovens). No case.

Reverberatory, open hearth and like furnaces. No case.

Roasting and calcining and otherwise treating pulverulent and pasty materials, furnaces for (other than kilns, reverberatory, rotary and shaft furnaces). No case.

Rotary furnaces and kilns. 56299, 58433, 59179.

Shaft and like furnaces (including blast and cupola). 56559, 57483.

Smoke preventing and consuming. No case.

soaking pit type furnace, *see* Furnace, etc.stokers, mechanical, *see* Charging, etc.

Tilting and oscillating furnaces. No case.

Furnaces, electric, *see* HEATING BY ELECTRICITY.

FURNITURE. LXVI(4).

beds, *see* Chairs, etc.

blinds, window, *see* Window, etc.

brackets and bracket like racks, *see* Window, stair, etc.

Cabinets, wardrobes, book cases and miscellaneous furniture and fittings.
No case.

Chairs, seats, bedsteads and like furniture for sitting and lying upon.
56342, 56459, 56527, 56946, 58082, 58677.

constructional elements such as slotted metal sections, *see* BUILDINGS,
ETC.

cycle stands, *see* CYCLES, ETC.

Tables, desks, and leaf-turners and holders. No case.

Upholstery, wall furniture, screens and looking glass. 56417, 57913, 58023.
58637.

Window, stair and like furniture, brackets, racks and stands. 57371, 59192.

Fuse boxes, electric, *see* ELECTRIC COUPLINGS, ETC.

Fuses, electric, *see* ELECTRIC COUPLINGS, ETC.

G

Gallium, obtaining by electrolysis, *see* ELECTROLYSIS, ETC.

Galvanic cells, *see* BATTERIES, ETC.

GAMES, TOYS AND AMUSEMENT APPARATUS. XLII(4).

Amusement, recreative and exercising apparatus (other than games and
toys). No case.

Balls for games, 56304, 56340, 56411, 58168, 58201.

Bats, clubs, rackets and like striking appliances for games. 56285.

Indoor games (other than construction of bats and striking appliances).
59123.

Miscellaneous. No case.

Outdoor games (other than construction of bats and striking appliances, but
including preparation of ground for). No case.

Presses for rackets, tennis and like. No case.

Racing games. No case.

shuttle-cocks, *see* Balls for games, etc.

Toys. 56263, 56264, 56434, 58676.

Garments, *see* DRESS, ETC.

Gas generators or producers, *see* COKING, ETC.

**GAS MANUFACTURE (OTHER THAN BY GAS PRODUCERS AND
RETORTS) AND DISTRIBUTIONS. XXXII(3).**

(This heading includes the manufacture of combustible gaseous products for
illuminating, heating and motive power purposes.)

Collection of gaseous or liquid by-products. 57206.

collectors for wasting liquors, *see* Collection, etc.

Gas enrichers (in which gas is not burned immediately), including enrich-
ing compositions. No case.

Gas holders. No case.

gases, purifying by treating with liquids, *see* Washing, etc.

GAS MANUFACTURE, ETC.—contd.

Miscellaneous. No case.

Production of permanent gas by dissociation or partial combustion of liquid fuel (excepting cracking). 58317, 59021.

synthesis gas generation burners for, *see* BURNERS, ETC.

utilising sensible heat during gasification of fuels for steam generating. *see* HEATING SYSTEMS, ETC.

Washing, scrubbing or otherwise treating gases with liquids. 56206, 56591, 56932, 57358, 57467, 57769, 58602.

Gas producers, *see* COKING, ETC.

Gas turbine engines, *see* TURBINES, ETC.

Gas turbines, *see* TURBINES, ETC.

Gas turbines, pressure exchangers for, *see* TURBINES, ETC.

Gaseous hydrocarbons, *see* CARBON COMPOUNDS, ETC.

Gases, cleaning and treating with liquids, *see* GAS MANUFACTURE, ETC.

Gases, cooling, *see* COOLING, ETC.

Gases, heating, apparatus for, *see* HEATING SYSTEMS, ETC.

Gases, purifying other than by washing, *see* AIR AND GASES, ETC.

Gasification of solid or liquid fuels, *see* FUELS, ETC. also GAS MANUFACTURE, ETC.

Gasification of solid or powdered fuel, *see* COKING, ETC.

Gasifiers for burners, *see* BURNERS.

Gasket packing, *see* STEAM ENGINES, ETC.

GAUGES, MEASURES OF LENGTH AND TESTING APPARATUS. XLI(6).

56310, 56826, 59165.

measuring length electrically, *see* MEASURING AND, ETC.

Gear mechanisms for motor vehicles. *see* MOTOR VEHICLES.

Gearing, differential speed clutches, centrifugal automatic, *see* MECHANISM MISCELLANEOUS.

Gearing for conveying rotary motion, *see* MECHANISM, ETC.

Gearing, variable speed, *see* MECHANISM MISCELLANEOUS.

Gearing, mechanical, *see* MECHANISM MISCELLANEOUS.

Gears for motorcycles, *see* MOTOR VEHICLES.

Generating devices for cold radiations, *see* COOLING, ETC.

Generators, electric, *see* DYNAMO-ELECTRIC, ETC.

Germicidal detergent composition, *see* DISINFECTING, ETC.

Gibberellic acid preparation of, *see* CARBON COMPOUNDS, ETC.

Girders and beams, *see* BUILDINGS, ETC.

Gland preparations, *see* DISINFECTING, ETC.

Glass, bending, *see* GLASS, ETC.

Glass fibres, *see* GLASS, ETC.

Glass fibres, drawing, *see* GLASS, ETC.

GLASS MANUFACTURE. XXXVI.

Annealing, tempering and toughening glass. 59231.

applying light diffusing layers to glass surfaces. *see* Miscellaneous.

bending sheets, apparatus and method for, *see* Miscellaneous.

Blowing hollow-ware. No case.

composition of glass, *see* Production, etc.

GLASS MANUFACTURE—contd.

Compound or laminated glass sheets. 58378.

Cutting or dividing. 57708, 58591.

Delivering and gathering molten metal. No case.

Drawing and extruding, 57374, 57384, 57498, 57499, 57874, 58647, 58648.

Enamels and enamelling vitreous. 57384.

flat glass formed by drawing, *see* Drawing, etc.

flat glass forming by casting, *see* Moulding, etc.

gilding of glass beads, *see* Miscellaneous.

glass bending moulds, *see* Moulding, etc.

glass fibres compound sheets material, *see* PROOFING, ETC.

glass melting and refining furnace, *see* FURNACES, ETC.

Glassware forming by miscellaneous processes. No case.

heat treating glass sheets, *see* Annealing, etc..

Miscellaneous—

Applying light diffusing layers to glass surfaces 58713.

Bending apparatus. 58107, 58108, 59231.

Bending sheets. 56395, 58146, 58748.

Binding glass fibres. 57384.

Gilding of glass beads. 58816.

Glass fibers. 58063.

Glass sheets bending. 58522.

Heating glass sheets. 59231.

Sizing glass surface. 58397.

Moulding and casting (other than blowing). 58647, 58648, 59236.

Production and purifications of metal. 56705, 56974, 57120, 57514, 57773, 57774, 58580, 58581, 58846.

refining of glass, *see* Production, etc.

silica sands for manufacturing glass, *see* Production, etc.

Glass melting furnace, electric, *see* HEATING BY ELECTRICITY, ETC.

Glass melting furnaces other than electric, *see* FURNACES, ETC.

Glass tubing, severing apparatus for, *see* GLASS, ETC.

Gloves and other body coverings, *see* DRESS, ETC.

Glucoside condensation products, *see* CARBON COMPOUNDS, ETC.

Glycinamide, *see* CARBON COMPOUNDS, ETC.

Goggles, *see* SPECTACLES, ETC.

Gold obtaining by electrolysis, *see* ELECTROLYSIS, ETC.

**GOVERNORS, SPEED-REGULATING FOR ENGINES AND MACHINERY.
XLIV(2).**

58255.

Grab excavators, *see* EXCAVATING.

Grab mechanisms for lifting and loading *see* LIFTING, ETC.

Grabbing cranes, *see* LIFTING, LOADING, ETC.

Grading coal and like minerals by washing process, *see* WASHING GRANULAR, ETC.

GRAIN AND SEEDS, TREATMENT OF (INCLUDING TREATMENT AND PRODUCTION OF FLOURS AND MEALS). I(3).

(This heading includes the treatment in bulk of single stone fruits and nuts for the removal of pericarp methods and apparatus not resulting in such modification are indexed under various headings for the processes such as DISINFECTING, ETC.; FOOD, ETC.; SIFTING, ETC.).

Damping with and otherwise applying water and other liquids. No case.

Flattening by mechanical means. 56901, 56902

flour mills, *see* GRINDING, ETC.

Hulling, husking and decorticating mechanically. 57014, 57059.

Miscellaneous—

Storage bins. 56298.

Production and treatment of flour and meal (including processes of mechanical reduction other than treating by air, gases and liquids). 57955.

Roasting grains, cereals and like granular food products. 56900.

Sampling granular materials. No case.

Scouring and polishing. No case.

shelling nuts, *see* Hulling, etc.

Thrashing appliances. No case.

Treating by air, gases or vapours (including steaming and heating indirectly). No case.

Gramophone record changing device, *see* PHONOGRAPHS, ETC.

Granular a pulverulent material heating, *see* HEATING SYSTEMS, ETC.

GRANULATING FUSIBLE MATERIALS. XXXIII(4).

57693, 57912, 58786.

Grease composition mineral, *see* OILS, ETC.

Grenades, ammunition, *see* AMMUNITION, ETC.

GRINDING, CRUSHING, PULVERISING AND LIKE DISINTEGRATING. XXXIV(2).

(This heading does not include Agricultural implements (AGRICULTURE); Graters and crumblers (COOKING); Hulling, husking and decorticating grains (GRAIN, ETC.); Rag engines (PAPER); Preparation of fibres for spinning (SPINNING); Cutting and breaking tea (TEA MANUFACTURE); Thrashing machines (GRAIN AND SEEDS, ETC.).)

Ball and tube mills. 57434.

breaking or crushing by direct percussion, *see* Grinding, etc.

Conical and like mills. No case.

Disc and like mills (stone mills). 57070, 57071.

Edge-runners and pans and like mills. No case.

feeding devices for granular and like materials, *see* Miscellaneous.

Grinding and breaking by direct percussion (including stamps for ores and pestles and mortars). 58544, 58545, 58546, 58749.

Impact pulverisers. 56541, 56802, 57500.

machines for grinding nails pins, etc. *see* Miscellaneous, etc.

Miscellaneous types of mills and details—

Cutting bamboo strips. 57444.

Nails pins, etc. grinding. 57157.

Roller mills other than sugarcane mills. 57443, 57971.

GRINDING, CRUSHING, ETC.—contd.

Sugarcane mills. No case.

Grinding machines, *see* POLISHING, ETC.

Grinding or honing machines, *see* POLISHING, ETC.

Guanidine compounds, *see* CARBON COMPOUNDS, ETC.

H

Hackling machines, *see* SPINNING, ETC.

Halogen androsthenes, *see* CARBON COMPOUNDS, ETC.

Halogenated aryl compounds, *see* CARBON COMPOUNDS, ETC.

Halogenophthalanes, *see* CARBON COMPOUNDS, ETC.

3-Halogen phenthiazines, *see* CARBON COMPOUNDS, ETC.

HAND TOOLS. XLIII(2).

(This heading does not include Boring and Drilling tools.)

Box openers, crow-bars and like prizing tools. No case.

Chisels and gouges. No case.

Cramps and clamps and vices. 56592.

Extracting and removing nails, tacks, rivets, keys, cotters, collars, hand-tools for. No case.

Files and rasps. No case.

Handles for hand-tools, including those for brushes, cutlery, mop and the like. No case.

Mallets and hammers. 58596.

Miscellaneous—

Plaster planers and wall pointing tools. 57210.

plaster planers, *see* Miscellaneous.

Pliers, cutters, pincers and tongs. No case.

Screw drivers. 56680, 56681, 57101.

Spanners and wrenches. 56912, 57237.

vices, *see* Clamps, etc.

wall pointing tools, *see* Miscellaneous.

Handlooms, *see* LOOMS.

HARNESS. SADDLERY AND HORSE SHOES. XXIV(2). No case.

Hat, *see* DRESS, ETC.

Headlight for motor cars, *see* LAMPS FOR LIGHTING, ETC.

Heald, *see* LOOMS, ETC.

Heart extract, preparation of, *see* DISINFECTING, ETC.

Heat actuated pumps for raising and forcing liquids, *see* WATER, ETC., RAISING, ETC.

Heat-exchangers, *see* HEATING SYSTEMS, ETC.

Heat-exchanger-steam generators, *see* STEAM GENERATORS.

Heat-exchangers, *see* HEATING SYSTEMS, ETC.

Heat-exchanging, surface apparatus for, *see* HEATING SYSTEMS, ETC.

Heating and bending glass sheets, *see* GLASS, ETC.

Heat-treatment of metal for improving tensile strength, *see* ANNEALING, ETC.

Heat-treatment of steels, *see* ANNEALING, ETC.

HEATING BY ELECTRICITY. LIX(2).

Arc furnaces. 57296, 57907, 58148.

electric heaters, porcelain plate for smoking, *see* Hot plates, etc.

Electrodes for electric furnaces. 58308.

Heaters for liquids and accessories therefor. 58548, 58584.

Hot plates, boiling rings, and like appliances (other than adapted for use as radiators). 56435, 57146, 57424.

Induction furnaces and ovens and other furnaces not classified. 56390, 57296.

Miscellaneous—

Dielectric heating apparatus or oven. 58408.

Glass melting furnace. 58307.

Melting or heating portions of plates with beam of charged particles 57697.

Radiators, imitation fires, and stoves for heating buildings for vehicles. 58732, 58941.

Resistance furnaces (the resistances forming parts of the furnace or oven). 57328, 57608, 58348.

Heating granular material, *see* HEATING SYSTEMS, ETC.

HEATING SYSTEMS AND APPARATUS (OTHER THAN FURNACES AND STOVES). VII(2).

(Heating processes and apparatus applicable to BURNERS; FURNACES; STEAM GENERATORS; STEAM SUPERHEATERS; STOVES are excluded from this heading.)

autoclave, *see* Digesters, etc.

Buildings, ships and vehicles, systems for heating. No case.

cleaning of tubes of heat exchanges, *see* PIPES, ETC.

Digesters (closed heaters in which substances are disintegrated with liquids). 57166, 57436.

Feed water for hot-water boilers and steam generators, heating. No case.

heat exchangers, *see* Surface, etc.

heaters for drying tea, *see* DRYING, ETC.

insulating coating, heat and sound, *see* Non-conducting, etc.

Liquids and gases, heating (other than feed-water heaters; and apparatus involving structural modifications of furnaces and stoves. 56217, 56218, 56407, 56789, 56806.

Miscellaneous heating systems—

Device for heating threads. 56339.

Heat pump. 57357.

Heating granular and pulverulent materials. 58878.

Heating granular material. 56221, 56511, 58231.

Non-conducting coverings for heat and sound (including fire proof coverings and linings). 56417, 58426, 59038.

receiver for solar heaters, *see* Utilising, etc.

rotary regenerative heater, *see* Liquids, etc.

Surface apparatus for effecting transfer of heat (other than apparatus in which heat is transferred from products of combustion).

HEATING SYSTEMS, ETC.—contd.

(Adaptation and arrangements of surface apparatus for special purposes are indexed only under separate headings, such as COOLING, ETC.; DISTILLING, ETC.; STEAM GENERATORS; STEAM SUPERHEATERS; FURNACES, ETC.)

(Apparatus for effecting transfer of heat from products of combustion are indexed only under STEAM GENERATORS or STEAM SUPERHEATERS.)

56571, 56806, 56807, 56808, 56827, 57453, 58560, 58791, 58874, 58954.

temperature controlled heating elements, *see* Thermostats, etc.

Thermostats and like apparatus for regulating temperature. 56789, 58732, 59086.

Utilising for heating and power purposes solar and natural heat. 56622.

utilising sensible heat during gasification of fuels for steam generating, *see* Feed water, etc.

Hectographic copying process, *see* PRINTING.

Heddle shafts, *see* LOOMS.

Helicopters, *see* AERONAUTICS.

Herbicidal compositions, *see* DISINFECTING, ETC.

Heterocyclic compounds, organic, *see* CARBON COMPOUNDS, ETC.

Hexachlorobicycloheptadiene, *see* CARBON COMPOUNDS, ETC.

High frequency electric cables, *see* CONDUCTORS, ETC.

Hogsheads, *see* HOLLOWARE.

Holders or stand for cycle *see* CYCLES, ETC.

Holders for fluorescent tubes *see* VACUUM, ETC.

HOLLOW WARE. XL(4).

[(Excepting bottles for storing air and gases under pressure (AIR AND GASES); bed pans (CLOSETS; BOTTLES, ETC.); cold and heat retaining vessels (COOLING); cruet and like receptacles and drinking vessels and other table articles (TABLE ARTICLES); tea and like infusions making apparatus for (DECOCTIONS) and latrine basins (CLOSETS).]

Buckets, pails, baking, heating, cooking and like vessels metallic. 58850.

Cans and boxes, opening by cutting or tearing. No case.

Casks and barrels. 56477, 56478, 56716, 57616, 58592.

containers, non-metallic, *see* Non-metallic, etc.

Lids and covers not forming tight joint with receptacles. No case.

Miscellaneous—

Container with dispensing arrangement. 56617.

Non-metallic vessels, other than casks and barrels. 56617, 58089, 58592, 59158.

Spouts. 57615.

Tubes or containers, collapsible. 56785, 58592, 58644, 59158.

Horns, musical and soundings for, *see* BELLS, ETC.

Hoses and like pipes of elastomeric material, *see* PIPES, ETC.

bungs and bushes for bungholes, *see* STOPPERING, ETC.

filling with liquids, casks and like vessels, *see* STOPPERING.

lids forming tight joint with receptacles, *see* STOPPERING, ETC.

HOT-AIR AND COMPRESSED-AIR ENGINES. XLVI(1).

56275.

Hot gas of compressed gas engines, *see* HOT-AIR, ETC.

HOT-AIR AND COMPRESSED, ETC.—contd.

- Hot plates, boiling rings and like appliances, electric, *see* HEATING BY, ETC.
Hubble bubble, *see* CIGARS, ETC.
Hubs for wheels, *see* WHEELS, ETC.
Humidifier plates for air conditioning, *see* VENTILATION.
Humidifying or moistening air gases for ventilation, *see* VENTILATION.
Humidifying or moistening air or gases other than for ventilation *see* GAS MANUFACTURE, ETC.
Hurricane lanterns, *see* LAMPS FOR LIGHTING, ETC.
Hydahtoin compounds, *see* CARBON COMPOUNDS, ETC.
Hydraulic accumulators, *see* HYDRAULIC PRESSES, ETC.
Hydraulic axil piston machines, *see* HYDRAULIC PRESSES, ETC.
Hydraulic cement, *see* CEMENT.
Hydraulic converters or clutches, *see* HYDRAULIC PRESSES, ETC.

HYDRAULIC ENGINEERING, MISCELLANEOUS. XXVIII(2).

(This heading includes subaqueous buildings, canals, flow meters, siphons, sluice gates and the like.)

- Booms and like defences for coasts, harbours and rivers. No case.
Buildings, and structures, sub-aqueous. 57153, 57844.
Canals and rivers. No case.
control device for opening of sluice-gates, *see* Sluice-gates.
Fountains, hydrants, standpipes and water cranes. 57862.
irrigation equipment, *see* Miscellaneous.
Liquid meters and venturi, pitot-tube and other velocity measuring apparatus. No case.
Miscellaneous—
 Irrigation equipment. 57310.
 pontoons for supporting and pitching members for under-water foundation or the like, *see* SHIPS, ETC.
 Siphons. 58757.
 Sluice-gates. 57185.
 spray producers, *see* SPRAY PRODUCERS.
Hydraulic brakes, *see* BRAKES, ETC.
Hydraulic mining and scouring apparatus, *see* EXCAVATING.

HYDRAULIC PRESSES, METERS, MOTORS AND LIKE APPARATUS FOR USE WITH HIGH PRESSURE. XXIX(1).

- actuating pistons for operating valves of hydraulic presses, *see* Hydraulic presses, etc.
actuators operated by fluid pressure, *see* Hydraulic, etc.
bearings for hydrostatics transmission, *see* BEARINGS, ETC.
couplings, hydraulic, *see* Hydraulic transmission, etc.
crank shafts, grinding, *see* POLISHING, ETC.
detector of liquid pressure, *see* Liquid, etc.
exhaust valves for presses, *see* VALVES, ETC.
fluids, special for hydraulic transmission of power, *see* Hydraulic, etc.
hydraulic accumulators, *see* Machines and apparatus, miscellaneous.
hydraulic converters or clutches, *see* Hydraulic transmission, etc.
hydraulic pistons, controlling strokes, *see* Hydraulic presses, etc.

HYDRAULIC PRESSES, ETC.—contd.

hydraulic presses, particularly adopted for metal working, *see* METAL WORKING also.

Hydraulic presses (including steam and other fluid pressure presses and hammers.) 56350, 56586, 56609, 56918, 57295, 58609.

Hydraulic transmission of power. 56619, 56657, 56896, 56982, 56983, 57269, 58293, 58364, 58613, 58614, 58841.

Liquid pressure engines and liquid meters. 56394, 57003, 58322.

Machines and apparatus, miscellaneous. 58261, 58840.

sealing devices for hydro-pneumatic accumulators, *see* STUFFING BOXES, ETC.

torque converters, arrangement for driving motor vehicles, *see* MOTOR VEHICLES.

Hydraulic ram, *see* HYDRAULIC PRESSES, ETC.

Hydraulic ram pumps, *see* WATER AND OTHER, ETC.

Hydraulic transmission of power, *see* HYDRAULIC PRESSES, ETC.

Hydraulic turbine, *see* TURBINES, ETC.

Hydrocarbon oils cracking, *see* DISTILLING, ETC.

Hydrocarbon oils refining other than by distilling, *see* OILS, ETC.

Hydrocarbon separating by distillation, *see* DISTILLING, ETC.

Hydrocarbons, *see* CARBON COMPOUNDS, ETC.

Hydrocarbons, converting into lighter fractions, *see* DISTILLING, ETC.

Hydrocarbons, hydrogenation of *see* CARBON COMPOUNDS, ETC.

Hydrogen chloride, *see* CHEMICAL COMPOUNDS, ETC.

Hydrogen cyanide, *see* CHEMICAL COMPOUNDS, ETC.

Hydrogen sulphide, *see* CHEMICAL COMPOUNDS, ETC.

Hydrogenation of carbonaceous materials, *see* DISTILLING, ETC.

Hydrogenation of hydrocarbon, *see* DISTILLING, ETC.

Hydroxy benzylamino phenols, *see* CARBON COMPOUNDS, ETC.

Hydroxy-isophthalic acid derivatives, *see* CARBON COMPOUNDS, ETC.

Image intensifiers to reproduce images formed by radiation pulses, *see* VACUUM, ETC.

Iminodibenzyl compounds, *see* CARBON COMPOUNDS, ETC.

Impedance bridges or networks, *see* TELEGRAPHS, ETC.

Impregnating base fabrics with plastics, *see* PROOFING, ETC.

Impregnating or covering glass fabrics with plastic materials, *see* PROOFING, ETC.

Incandescent lamps, electric, *see* ELECTRIC LAMPS, ETC.

INCRUSTATION AND CORROSION OF METALLIC SURFACES—PREVENTING AND REMOVING XLV(1).

56419, 57024, 57025, 57244, 57537, 57745, 58137, 58224, 58238, 58326.

INDIA RUBBER, GUTTA-PERCHA, MICA AND LIKE MATERIALS OF CONSTRUCTIVE UTILITY. XII(1).

antioxidants for rubber preservation, *see* Miscellaneous.

artificial boards, *see* Miscellaneous.

INDIA RUBBER, ETC.—contd.

bladders and like hollow inflatable rubber articles making *see* MOULDING, ETC.

Coagulating and otherwise separating from latex. No case.

Cojouring, ornamenting, variegating and metallizing. No case.

Curing and treatment of latex before and after coagulation. 57276.

Devulcanising and utilising waste. No case.

Embedded wires, fibres and the like. 56413.

India rubber compositions. 56403, 57276, 57487, 57661, 57742, 57857, 58681, 58843, 59252.

Latex, collecting and extracting from plants. No case.

Machines for creping, calendering, washing, drying, purifying, rolling, and mechanical extraction from plants. No case.

Mica and other naturally occurring materials of constructive utility. 57840.

Miscellaneous—

Artificial boards. 56582.

Board artificial. 56883.

Fractional composition containing rubber. 56947.

Liquid rubber. 58414.

Preventing cracking of rubber. 59252.

polymeric compositions containing rubber, *see* India rubber, etc.

presses, vulcanizing, *see* Vulcanizing.

reinforced with cords, *see* Embedded, etc.

Rubber, rendering porous, spongy or powder. 56335, 56414, 57320, 58263.

Seaming and otherwise joining. 57509, 58234.

Seaweed and like marine products, treating. No case.

Sheets, threads, tapes, rods, rollers, cylinders and tubes making. No case.

Substitutes for rubber. No case.

Vulcanising. 56277, 56289, 57908, 57968, 58728, 58812, 59062, 59243.

vulcansing press, *see* Vulcanizing.

vulcanizing press, locking means for, *see* Vulcanizing.

India rubber, shaping of, *see* MOULDING, ETC.

INDICATING, RECORDING AND REGISTERING APPARATUS, MISCELLANEOUS. XLI(7).

(This heading includes the terminal elements of measuring instruments whereby an indication at the moment is furnished, a permanent record is made, or a totalising is effected by integration. Dials, knobs, handles, scales and other graduated and reading elements for manually adjusting and setting the parts of measuring instruments and other apparatus, of which the reading-elements are not of interest as indicating means in general, are indexed under separate heading for the apparatus.)

Calenders and date indicators. No case.

Indicating. 57919, 58391.

magnetic system of intelligence recording, *see* Recording, etc.

Miscellaneous. No case.

Recording and registering. 56371, 57204, 58782.

Indigoid dyes, *see* CARBON COMPOUNDS, ETC.

Indole derivatives, *see* CARBON COMPOUNDS, ETC.

INDICATING, RECORDING AND, ETC.—contd.

Indoor games, *see* GAMES, ETC.
 Inductance coils, *see* CAPACITANCES, ETC.
 Inductances, *see* CAPACITANCES, ETC.
 Induction motors, *see* DYNAMO-ELECTRIC, ETC.
 Ingots casting, *see* CASTING METALS.
 Inhalators, *see* MEDICAL, ETC.
 Injection moulding machines, *see* MOULDING, ETC.
 Injection moulding of plastics, *see* MOULDING, ETC.
 Injection syringe, *see* MEDICAL ETC.

INJECTORS AND EJECTORS. XLVII(2).

57798, 58311.

Ink, *see* WRITING, ETC.

Ink ampules or containers, *see* WRITING, ETC.

Insecticidal composition, *see* DISINFECTING, ETC.

Insecticide powders, dusting apparatus for, *see* SPRAYINGS, ETC.

Insulating coating, heat and sound, *see* HEATING SYSTEMS, ETC.

Insulating materials, electric *see* CONDUCTORS, ETC.

Insulators, electric, *see* CONDUCTORS, ETC.

Inter-exchange working systems telephone, *see* TELEPHONES, ETC.

Interlocking apparatus for railway, signals, *see* RAILWAY SIGNALS, ETC.

INTERNAL COMBUSTION ENGINES. XLVI(2).

(This heading includes features specially designed and adapted for internal combustion engines. Construction of engine details and accessories of interest apart from internal combustion engines are indexed under such headings as BRAKES; FILTERING; LUBRICATING; MECHANISM, MISCELLANEOUS; STEAM ENGINES; VALVES, ETC.)

arrangement of induction pipe in automobiles, *see* MOTOR VEHICLES.
 arrangement of pre-combustion chamber of a compression ignition engine, *see* Cylinders, etc.

Bed-plates, frames and casings. No case.

carburettors other than spray carburettors, *see* Vaporisers, etc.

combustion chambers, *see* Cylinders, etc.

cooling arrangements, *see* Miscellaneous.

Cycles and systems of working (including types of engines). 56523, 56653, 56701, 58151, 58152.

cylinder heads cooling, *see* Miscellaneous, etc.

Cylinders and combustion chambers. 56430, 56850, 56893, 57195, 57545, 58152, 58261, 58814, 58859.

Driving gear. No case.

Exhaust silencers. No case.

flame traps for crank case, *see* Miscellaneous.

fuel-air mixtures strength, means for controlling dependent on load, *see* Cycles, etc.

hot plug, arrangement of between combustion pocket and cylinder bore, *see* Cylinders, etc.

Igniting systems. 57189, 58863, 58928.

internal combustion engines rotary, *see* OTTAWA, ETC.

lubricating systems for engines, *see* LUBRICATING, ETC.

INTERNAL COMBUSTION, ETC.—contd.

Miscellaneous—

Air cooling systems. 56890, 56893, 57385.

Cooling engines 56966.

Flame traps for crank case. 57053.

plug for ignition, *see* Igniting system.

Pumps. 56905.

Spray carburettors. No case.

Starting, stopping and reversing. No case.

timing mechanism for fuel injection pumps, *see* Pumps.

Valves and valve gear. 56599, 58578.

Vapourisers and heaters. 57899, 58235, 58236.

Ion exchange materials for purifying water and unspecified liquids. *see*
WATER AND UNSPECIFIED, ETC.**IRON AND STEEL MANUFACTURE. XXXIII(5).**

Converters, metallurgical. 59015.

Extracting from ores—

Direct processes. 56986, 57045, 57050, 57483.

Smelting processes—

Blast furnace processes. 59201.

Other than blast furnace processes. 58348.

fumes treating or removing in steel making, *see* Miscellaneousslag producing in iron smelting processes, *see* Extracting, etc. (smelting, etc.)

Steel making and purifying—

Bessemer processes. 57194, 57330.

Electric processes. 57653.

Miscellaneous—

Addition agent for treating cast-iron. 58403.

Blowing oxygen. 57194.

Fumes treating or removing. 56959.

Introducing finely divided solids into molten metals like iron. 56311.

Iron oxides fines. 58861.

Iron treating with oxygen containing gases. 58565, 58566.

Mechano chemical treatment of molten metals. 58756.

Oxygen blowing in a refining vessel. 57474.

Refining pig iron by blowing oxygen in refining vessels. 57330, 57633.

Open hearth and reverberatory furnace processes. 57653.

Recarburising and other finishing processes. 56559.

treating cast iron, addition agents for, *see* Steel making, etc.Iron chloride, *see* CHEMICAL COMPOUNDS, ETC.Iron obtaining from ores, *see* IRON, ETC.Iron for pressing cloth and the like, *see* DYEING, ETC.Iron ores, reducing *see* IRON, ETC.Iron ores, smelting, *see* IRON, ETC.Iron oxide fines for steel making, *see* IRON, ETC.Iron oxide reducing, *see* IRON, ETC.Iron oxides, *see* CHEMICAL COMPOUNDS, ETC.Iron electric, *see* DYEING, ETC.

IRON AND, ETC.—contd.

- Irradiation and reduction of dehydrochlosterol, product obtained by, *see* CARBON COMPOUNDS, ETC.
Irrigation equipment, *see* AGRICULTURAL, ETC.
Irrigation pipe lines, controlling flow of water from (excepting siphons and sluice gates), *see* VALVES, ETC.
Isocamphene derivatives, *see* CARBON COMPOUNDS, ETC.
Isonipecotate and derivatives thereof, *see* CARBON COMPOUNDS, ETC.
Isopropyl benzene, *see* CARBON COMPOUNDS, ETC.
Isoquinolines, *see* CARBON COMPOUNDS, ETC.
Isoxazolidone and derivatives, *see* CARBON COMPOUNDS, ETC.

J

- Jacks, *see* LIFTING, ETC.
Jacquards for shedding, *see* LOOMS.
Jaggery manufacture, *see* SUGAR, ETC.
Jet propulsion, internal combustion turbines for, *see* TURBINES, ETC.
Jet propulsion power plants, *see* TURBINES, ETC.
Jettisoning devices in aircrafts, *see* AERONAUTICS.
JEWELLERY. LXVI(5).

57246, 58241, 58365, 58366, 58803, 58872, 58873, 59054, 59085.

- Jiggers for dyeing machines, *see* DYEING, ETC.
Joint making packing, *see* STEAM ENGINES.
Joints for pipes, *see* PIPE JOINTS.
Junction boxes, electric, *see* ELECTRIC COUPLINGS, ETC.

K

- Kainic acid and derivatives, *see* CARBON COMPOUNDS, ETC.
Kanarese typewriter, *see* TYPE WRITER, ETC.
Kaplan turbines, *see* TURBINES, ETC.
Ketones, *see* CARBON COMPOUNDS, ETC.
Kiln, *see* FURNACES, ETC.
Kilns rotary, *see* FURNACES, ETC.

KNITTING AND BRAIDING. XXI(2).

56939.

- Knobs form tuning units in radio sets, *see* WIRELESS, ETC. CONTROLLING.
Knobs securing to shafts, *see* MECHANISM, ETC.
Knot-tying machines, *see* SEWING, ETC.

L

LABELS, COINS, TOKENS AND TICKETS. XLII(5).

57119.

- Lacquers, *see* PAINTS, ETC.

TABLES, COINS, ETC.—contd.

Lake dyes, *see* CARBON COMPOUNDS, ETC.

Laminated fabric, *see* PROOFING, ETC.

Laminated sheet materials, *see* PROOFING, ETC.

Lamp holders, electric, *see* ELECTRIC LAMPS, ETC.

LAMP—CHIMNEYS, GLOBES, LENSES, SHADES, REFLECTORS, AND HOLDERS THEREFOR. XXX(3).

Chimneys, globes like illuminant enclosure. No case.

Galleries, holders and mountings for chimneys, globes, shades and reflectors. 57785.

Lenses, prisms and equivalent lantern fronts and holders therefor. 57300, 58165.

Miscellaneous. No case.

Obturator, screen and like shutters for obscuring light. No case.

Reflectors and reflecting surfaces. 58061.

refractor members, *see* Lenses, etc.

Shades. No case.

street lights prism type lamp enclosures for, *see* Lenses, etc.

Lamps electric *see* ELECTRIC LAMPS, ETC.

LAMPS FOR LIGHTING AND RELATING (EXCEPTING BURNERS AND BURNER FITTINGS, LAMPS, CHIMNEYS, GLOBES, AND ELECTRIC LAMPS). XXX(4).

Acetylene and like lamps without lanterns. No case.

hurricane lanterns, *see* Portable lamps, etc.

Igniters and lighters for burners, cigars and like. 57639.

miners lamps, *see* Portable, etc.

Miscellaneous. No case.

Portable lamps other than vehicle, signal and like. 56250, 57510, 58315

Search lights, beacon lights buoy and like lamps. No case.

signal lamps, *see* Vehicle, etc.

Street, shop front, ceiling, wall and like fixed lamps. No case

Supporting and directing. 58597.

Systems of lighting. No case.

Vehicle, signal and like lamps. 56401, 58597, 58962.

Lap forming machines, *see* SPINNING, ETC.

Latches, safety, *see* FASTENINGS, ETC.

Lather, producing compositions, *see* SOAPS, ETC.

Lathes, *see* METAL WORKING.

Lathes, turning, *see* METAL WORKING.

Latrins septic tanks or privies, *see* CLOSETS, ETC.

Lattice girders, *see* BUILDINGS, ETC.

Leaching for metal extracting, *see* METAL EXTRACTING, ETC.

Lead extracting, *see* METALS EXTRACTING, ETC.

Lead recovery of from Zinc-lead mixed oxides, *see* METAL EXTRACTING, ETC.

Leakage in tubes stopping, *see* WHEELS, ETC.

LEATHER. XXIV(3).

(Operations and apparatus of interest apart from making leather are indexed under such headings as DYEING: DISINFECTING.)

curing agent for hides and skins, *see* Processes, preliminary, etc.

Currying, impregnating and other finishing processes. 56425, 57915.

Detanning and recovering tanning materials from waste. No case.

Leathers, fancy and leather substitutes produced by tanning processes. No case.

ornamenting, *see* Miscellaneous.

Miscellaneous. No case.

extracts, vegetable, for tanning making, *see* Miscellaneous.

Processes, preliminary to tanning (including apparatus for such processes). 56251, 57886.

Tanning processes (including apparatus for such processes). No case.

Lenses, optical, *see* PHILOSOPHICAL, ETC.

Lid for electric battery, *see* BATTERIES, ETC.

LIFE SAVING APPLIANCES, MARINE AND FIRE. XXXIX(5).

No case.

LIFTING, LOADING AND CONVEYING SOLIDS. XLIX.

(Adaptation and arrangement of lifting, lowering and hauling apparatus for traction of vehicles or for handling ships and boats are indexed under headings denoting such special use. Only features of interest apart from particular use are indexed here.)

belt conveyors, *see* Endless belt, etc.

bomb releasing from aircrafts, *see* EXPLOSIVES.

Cable haulage and aerial ropeways. No case.

Combination plants for mechanically handling and stacking materials. 56922, 57727, 57748, 58256, 58491.

conveyors vibratory, *see* Miscellaneous.

electrically operated grabbing cranes, *see* Grabs, etc.

elevating and erecting device for masts, pylons and posts assembled in sections, *see* Miscellaneous.

Endless belt, chain, bucket screw and rotary conveyors and elevators. 56328, 56471, 57314, 57318, 57393, 57433, 57510, 57914, 58287, 58472, 58513, 58514, 58538, 58688.

endless belt conveyor, washing apparatus for, *see* Endless, etc.

Grabs, lifting dogs, skips, tip buckets, slings and like load engaging, releasing and depositing means. 56665, 57186, 57561, 57795, 58533, 59229, 59230, 59242.

Jacks. 58927.

lifting slings, *see* Grass, etc.

Lifts and cages. 57207.

load releasing devices, *see* Grabs, etc.

loading and unloading, *see* Combination plants, etc.

masts, poles and pylons assembled in section device for elevating and erecting, *see* Miscellaneous.

mechanical means for conveying lubricant to chain conveyors, *see* LUBRICATING.

Miscellaneous—

Conveying by liquids as a slurry. 58102.

LIFTING, LOADING, ETC.—contd.

Miscellaneous—*contd.*

Elevating and erecting device for masts and pylons assembled in sections. 57466.

Pneumatically raising powdery material apparatus for. 56379.

Vibratory conveyors. 56416, 57727, 57879.

pneumatically raising powdery or granular material, *see* Miscellaneous.

stripping and lifting gear for engaging ingot moulds, *see* Grabs, etc.

tension element for belt conveyors, *see* Endless belt, etc.

Winches and cranes. 56549, 56589, 57599, 59001.

Lifting slings, *see* LIFTING ETC.

Light sensitive electric devices or cells, *see* TELEGRAPHS, ETC.

Lighting fittings, *see* LAMP-CHIMNEYS, ETC.

Linear polymers, *see* CARBON COMPOUNDS, ETC.

Liquid fuels, *see* FUELS, ETC.

Liquid pressure detector, *see* HYDRAULIC PRESSES, ETC.

Liquid pressure engines and liquid meters, *see* HYDRAULIC PRESSES, ETC.

Liquids and gases separating, *see* CHEMICAL PROCESSES, ETC.

Liquids filtering, *see* FILTERING, ETC.

Liquids purifying by sand filtration, *see* FILTERING, ETC.

Liquids, regulating volume of flow, *see* VALVES, ETC.

Liquids separating from a mixture of vapours, *see* CHEMICAL PROCESSES, ETC.

Liquids treating, ion-exchange processes and apparatus for ion-exchange processes and apparatus for purifying water, *see* WATER AND UNSPECIFIED, ETC.

Liquids, treating with gases, *see* GAS MANUFACTURE, ETC.

Liquified gas, storing, *see* AIR AND GASES, ETC.

Liver extracts, *see* DISINFECTING, ETC.

Liver powder, making of, *see* DISINFECTING, ETC.

Lixivating for metal extracting, *see* METAL EXTRACTING, ETC.

Load releasing devices, *see* LIFTING, ETC.

Loading and unloading, *see* LIFTING, ETC.

Loading coils for telecommunication circuits, *see* TELEPHONES, ETC.

Locking bolts, nuts, screws and the like, *see* BOLTS, ETC.

LOCKS (KEY AND PERMUTATION), SAFES AND STRONG ROOMS. LXIV(5).

Key operated locks, other than padlocks, shackle and hasp-locks. No case.

Miscellaneous. No case.

Padlocks, shackle and hasp locks (key operated). No case.

Permutation locks. No case.

Safes and strong rooms. No case.

LOCOMOTIVES AND TRACTION ENGINES, PORTABLE AND SEMI-PORTABLE ENGINES. XLV(2).

(This heading includes only components and details of special interest in respect of locomotives and traction engines, etc. Features of interest apart from locomotives, etc., are indexed under headings denoting the parts affected.)

Endless-track vehicles and tractors, general designs of. No case.

LOCOMOTIVES AND TRACTION ENGINES, PORTABLE AND ETC.,—cont.

Locomotives, general design of—

Bunkers, tanks and tenders. No case.

Condensers, coolers, feed water heaters and superheaters, heat accumulators, arrangement and disposition of. No case.

Cylinder, drain valves and cocks and gear arrangement of exhaust reservoirs and valves. No case.

Driving gear, arrangement of. No case.

Frames, plate and bar. No case.

Miscellaneous. No case.

Wheels, bogies and axles, arrangement and disposition of (including adjusting distribution of weight on axles). 57346.

Traction engines, portable and semi-portable engines. No case.

LOOMS. XXI(3).

bobbin changing devices, *see* Weft supplying, etc. (Weft doubling, etc.)
dobbies, *see* Shedding, etc.

Driving, reversing, stopping and starting. 56540, 58523, 59139, 59143.

handlooms, general design of, *see* Shuttleless, etc.

heddle shafts with detachable side supports, *see* Shedding, etc.

jacquards, *see* Shedding, etc.

Miscellaneous—

Machine for testing loom pickers. 58929.

pedal operated loom, *see* shuttleless.

pickers, testing machine for, *see* Miscellaneous.

reed adjusting device for looms, *see* Miscellaneous.

Shedding mechanism. 57429, 57820, 58190, 58520, 59145, 59146.

Shuttleless, pile fabric, swivel and like special looms. 56388, 56927, 57435, 57454, 57956, 58011, 58708, 59071, 59122.

Warp and fabric letting off, taking-up guiding and tensioning in. 58612 59144.

Weft supplying, inserting, beating up, cutting, doubling and twisting in (other than for shuttleless and like special looms)—

Beat-up motions and change box motions. No case.

Lays, lathes or stays. No case.

Miscellaneous—

Buffers. 59142.

Reed adjusting device. 59138.

Setting of looms. 59141.

Pickers, shafts, straps and connections and picking motions. 56795, 58172, 58453, 59148.

Shuttles (including guards therefor). 56388, 57579, 58575.

Weft, cutting, deflecting, slackening, tensioning and undulating. No Case.

Weft, doubling and twisting and replenishing mechanism. 57421, 57564, 58721, 58980, 59140.

weft yarn supplied from stationary package, *see* Shuttleless, etc.

wire card raising machines for textile and other fabrics, *see* Shuttleless, etc.

Loop takers for sewing, *see* SEWING, ETC.

Loose leaf binders, *see* FILING, ETC.

Loud speakers, *see* TELEPHONES, ETC

Lubricants, *see* OILS, ETC.

LUBRICATING. LIV(2).

bolster having reservoir, oil level, etc., *see* Passages, etc., (Machinery, etc.)

Cans and other portable containers for applying lubricants. No case.

lubricating by compressed air device for, *see* Lubricators, (Force feed).

lubricating oil forced by steam pressure, *see* Lubricators, (Forced).

Lubricators and lubricating bearing surfaces (other than lubricating passages, channels and reservoirs)—

Conveying lubricants by means other than fore-feed, gravity feed, or mechanical means. 57143, 58639.

Force-feed. 56849, 57209, 58277, 59235.

Gravity feed. No case.

Lubricant conveyed by mechanical means. 56525, 56625, 57763.

Miscellaneous—

Nozzles. 57114.

lubricators for spindle bolsters of spinning machines, *see* Passages, channels, etc. (Machinery and apparatus, etc.)

mechanical means for conveying lubricants to chain conveyors, railway wagons, etc., *see* Lubricators, etc., (Lubricant conveyed, etc.)

Passages, channels and reservoirs for guiding or containing lubricant in machinery in—

Bearings. 57763.

Connecting rods, cranks, crossheads, eccentrics and knuckle and like joints. No case.

Cylinders, pistons, piston rods and stuffing boxes. No case.

Machinery and apparatus, unclassified—

Spinning machines. 57596.

self-lubricating by viscosity drag of rotating surface, *see* Lubricators, etc. (Conveying, etc.).

Lubricating compositions, *see* OILS AND LUBRICANTS.

Lubricating grease and grease composition, *see* OILS, ETC.

Lubricating oils, refining, *see* OILS, ETC.

LUMINESCENT MATERIALS AND APPLICATIONS THEREOF. LXIII(2).

56323, 56486, 58950, 59213.

luminous paint and compositions, *see* PAINTS, ETC.

Luminescent powder for lamps, *see* LUMINESCENT, ETC.

Lunch boxes, *see* COOKING, ETC.

Lycopene, *see* CARBON COMPOUNDS, ETC.

Lysergic acid, *see* CARBON COMPOUNDS, ETC.

Lysine, *see* CARBON COMPOUNDS, ETC.

M

Machine tools for cutting and working metals, *see* METAL WORKING.

Machines for making chapatti, *see* COOKING, ETC.

Magnesium carbonate, *see* CHEMICAL COMPOUNDS INORGANIC.

Magnesium obtaining by electrolysis, *see* ELECTROLYSIS, ETC.

MAGNETIC. ELECTROSTATIC AND LIKE SEPARATORS. XXXIII(6).

56970, 57720, 57893, 59164.

voltage regulators for electrostatic separators, *see* ELECTRIC SUPPLY, ETC.

MAGNETIC, ELECTROSTATIC AND, ETC.—contd.

Magnetic materials other than alloys, *see* DYNAMO-ELECTRIC.

Magnetic materials for core and the like, *see* DYNAMO, ETC.

Magnetic properties of metal sheets, electric apparatus for measuring, *see* MEASURING AND TESTING.

Magnetic storage devices, construction of, *see* ELECTRIC SIGNALLING, ETC.

Magnetic storage devices utilising, *see* respective headings.

Magnetic tape recorders, *see* PHONOGRAPHS, ETC.

Magnetic testing of substances, devices for, *see* MEASURING & TESTING, ETC.

Magnetrons, *see* VACUUM, ETC.

Magnets, permanent construction of, *see* DYNAMO, ETC.

Maleic anhydride, *see* CARBON COMPOUNDS, ETC.

MANURES AND FERTILIZERS. I(4).

56803, 56837, 56868, 56869, 56879, 56880, 56887, 56895, 57334, 58153, 58554.

Margarine, *see* FOOD, ETC.

Masts posts and pylons, *see* BUILDINGS, ETC.

Match boxes, *see* BOXES, ETC.

MATCHES. XXXII(4).

No case.

match-boxes, *see* BOXES, ETC.

Materials granular, lifting, loading & the like, *see* LIFTING, ETC.

MEASURES OF CAPACITY AND DELIVERING MEASURED QUANTITIES. XLI(8).

Liquids, sampling. No case.

Measured quantities by volume, apparatus for separating from bulk and delivering—

(comprising only apparatus requiring external operation and adapted at each repeated and identical operation to measure and separate a pre-determined volume and deliver it.)

Granular, and like fluent solid materials, volume apparatus for delivering. No case.

Miscellaneous. No case.

Volume apparatus for liquids having *fixed* measuring chambers. 56300, 57191, 57440, 57706, 57963.

Volume apparatus for liquids having *moving* measuring chambers. No case.

Measures of capacity. No case.

MEASURING AND TESTING ELECTRICALLY. LVIII(6).

acoustic well logging apparatus employing electric means, *see* Geophysical, etc.

detecting radioactive radiation, *see* Electric, etc.

detecting vapours, gases or smokes, electrically other than geophysical, *see* Electric, etc.

Electric and magnetic tests and measurements (other than those for geophysical exploration and current, pressure and resistance measuring) 56456, 56497, 56710, 56752, 56760, 56826, 57282, 57378, 57554, 57555, 57799, 57823, 57842, 57875, 58138, 58143, 58562, 59078, 59099, 59165, 59211, 59212.

electrical testing of physical qualities of materials, *see* Electric and magnetic, etc.

MEASURING AND TESTING, ETC.—contd.

Geophysical exploration by electric and magnetic means. 56648, 56969, 58351, 58461.

magnetic properties of metal sheets, electric apparatus for measuring, *see* **Electric, etc.**

magnetic testing of substances, device for, *see* **Electric and magnetic, etc.**

Meters, electric (including galvanometers and other current voltage, and resistance measuring instruments). 56397, 56823, 57546, 58731.

Miscellaneous. No case.

moisture content of loose material, electric apparatus for measurement of *see* **Electric and magnetic, etc.**

physical qualities of materials measuring and testing electrically, *see* **Electric, etc.**

potentiometric recorders, *see* **Electric and magnetic, etc.**

radiation, electric device for detection of, *see* **Electric, etc.**

thickness gauges, electric, *see* **Electric, etc.**

well logging by electromagnetic neutron generating or detecting means, *see* **Geophysical, etc.**

watt-hour-meters, *see* **Meters, etc.**

Mechanism for renewing supply of web material to web consuming machines, *see* **WEBS AND SHEETS, ETC.**

MECHANISM, (MISCELLANEOUS). LXV(1).

(This heading comprises only construction of such mechanisms as clutches, gearings, linkwork, etc. Adaptations and arrangements of these mechanisms for particular machines are indexed under headings for such machines.)

belts, bands and ropes for transmitting power, *see* **Gearing belt, etc.**

change speed gearing, *see* **Gearing variable, etc.**

Clutches for conveying rotary motion. 56835, 57538, 58328, 59063.

Countershafts, crankshafts, and shafts and spindles. 56639, 57556.

coupling devices for synchromesh units, *see* **Clutches, etc.**

feeder gear boxes, *see* **Gearing, variable, etc.**

friction promoting composition containing rubber friction, *see* **INDIA RUBBER, ETC.**

gear mechanism for motor vehicles, *see* **MOTOR VEHICLES.**

Gearing belt, rope and chain. 56255, 58785, 59198.

Gearing for conveying or converting reciprocating and rotary motion (comprising arrangements only of two or more types of gearing through all of which motion is transmitted). 57880, 57881, 58026, 58956.

Gearing for stopping and starting machinery. No case.

Gearing, toothed and friction. No case.

Gearing, variable speed, differential and reversing. 56261, 56268, 56607, 56657, 56835, 56896, 58364, 59063.

housing for shaft coupling *see* **Mechanism not otherwise, etc.**

Link work, cams, tapped and ratchet and like gearing. No case.

Mechanism not otherwise provided for. 56708, 57837, 57878, 57883, 58634.

shaft positioning device, *see* **Countershafts, etc.**

slack adjusting mechanisms, *see* **Mechanism not otherwise, etc.**

spring loaded grip to prevent longitudinal movement of shaft, *see* **Mechanism not otherwise, etc.**

MECHANISM (MISCELLANEOUS).—contd.

synchromesh unit, *see* Gearing variable, etc.

Medicament adding to parenteal solution, equipment for, *see* MEDICAL, ETC.

MEDICAL AND SURGICAL APPLIANCES. XIX(2).

Bandages, dressings, pads, plasters and adhesive bandages and catamenial appliances. 56529, 56691, 56692, 56906, 57345, 57565, 583872, 58958, 59004

breathing mask used both in land and sea, *see* Respiratory appliances.

cotton distributor for, *see* Miscellaneous.

Deformity, fracture and like appliances, surgical and artificial limbs and trusses. No case.

Dental operating appliances and instruments. No case.

Ear instruments and hearing appliances (including stethoscopes). No case.

Electric and magnetic appliances. No case.

Medicines, administering (including syringes, pumps and like appliances). 57718, 58719.

Miscellaneous—

Apparatus for facilitating child birth. 59255.

Bone transplantations. 58177.

Equipment for adding medicament to parenteral liquid. 57396, 58519.

Packages for steril surgical articles. 57379.

Preserving bones. 58176.

Preserving tissues bones and the like. 58284.

Pressaries, surgical and suppositories and rectal appliances. No case.

Respiratory appliances. 57226, 57284.

Stands, trays and like supports. No case.

steril packing for surgical articles, *see* PACKING, ETC.

surgical dressings, *see* Bandages, etc.

Surgical operating appliances including optical instruments, surgical. No case.

Medicinal composition, *see* DISINFECTING, ETC.

Medicinal tablets, *see* DISINFECTING, ETC.

Metal casing, *see* CASTING, ETC.

Metal casting machine, *see* CASTING METALS.

Metals coating with metals otherwise than by electrolysis and electrodeposition, *see* TINNING.

Metal cutting machines, *see* METAL WORKING.

Metal extracting by electrolysis. *see* ELECTROLYSIS.

Metal oxides, *see* CHEMICAL COMPOUNDS, ETC.

Metal pipes, *see* PIPES & TUBES.

Metal pipes, making by metal processes, *see* METAL WORKING.

Metal pipes tapering by rolling, *see* METAL WORKING.

Metal sheets, coating with plastics, *see* PAINTS.

METAL WORKING. XXXV.

alumino-thermic welding of rails, *see* Welding.

arch torches for cutting purposes, *see* Miscellaneous.

arc torches for welding, *see* Welding, etc.

Bending. 56373, 56771, 57127, 57354, 57941, 58463, 58689, 58789.

boring, *see* Drilling.

METAL WORKING—contd.

brazing, *see* Soldering, etc.

control apparatus for machine tools, *see* Miscellaneous.

copying devices for machine tools, *see* Miscellaneous.

cropping metal pipes and tubes, *see* Shearing.

cutting by fusion or flame, *see* Miscellaneous.

desurfacing of metal surfaces, *see* Miscellaneous.

Drawing. 57024, 57025, 57208, 58120.

Drilling. 56333, 58300.

electric arc welding, *see* Welding.

electrode holders for welding devices, *see* Welding.

extrusion presses, *see* Miscellaneous.

Fluxes for metal working purposes. 57140.

Forging. 56583, 56727, 57061, 57508, 57545, 57673, 58327, 58496, 58609.

lathes, *see* Turning.

machines for grinding nails pins, etc., *see* GRINDING, ETC.

magnetic powder dispenser for welding, *see* Welding.

metal cutting machine, unclassified, *see* Miscellaneous.

metal pies and tubes making, *see* MISCELLANEOUS.

metal-pipes tapering by rolling, *see* Rolling, etc.

metal working presses, *see* Forging.

Milling. No case.

Miscellaneous—

Arc torch for cutting metals. 58828.

Boring hole in metal with bearing of charged particles. 57697.

Control apparatus. 58794.

Copying devices. 56268.

Cutting by flame. 58671, 58672, 58673, 58674.

Cylinder heads for refrigerant compressors and like bodies making. 58724.

Desurfacing of metal surfaces. 58219.

Drilling and slotting fixtures. 58253.

Expanding banded metal plates to form conduits. 58560.

Extrusion presses. 56667, 56668.

Fastener driving tool. 57101, 57977.

Fining machines for winding sheet metal about a tube to form a fin. 56771.

Forming passages in welded panels. 58561.

Heat exchangers refrigerators condensers and like making. 58874.

Making metal rims. 58896.

Mandrels. 56374.

Metal cutting machine. 57089.

Method of making tube. 56608.

Multi operation machine tools. 58262.

Perforating guns for well casings. 57196.

Perforating well casing. 57302, 57781.

Pipes and tubes making. 56246.

Powder lance for cutting metal and like refractory materials. 58829.

Preparing sheet-metal. 58173.

Slag producing metal smelting processes. 59201.

Shaping metal rims under diet and forming rollers. 56332.

METAL WORKING—concl'd.

Miscellaneous—*cont'd.*

Springs making or fabricating. 57414.

Stretching or tensioning metal bars. 57941.

Tool holders. 59180.

multi operation machine tool, *see* Miscellaneous.

Planning, shaping and slotting. 59180.

presses and hammers, *see* Forging, etc.

Rivetting. No case.

Rolling. 56904, 57606, 58290, 58367, 58595.

Screwing and tapping. 58290.

Seaming. No case.

shaping metal by pressure press for, *see* Forging, etc.

Shearing and punching. 56470, 57136, 57781, 58615.

Soldering. 56908, 57275.

speed control for hot-rolling mill, *see* Rolling.

spinning metals and shaping by pressure, *see* Forging.

Stamping and embossing. 56536.

stretching or tensioning metal bars, *see* Miscellaneous.

Turning. 56268, 56269, 56270, 56271, 56318, 57136, 58614, 59180.

tool holders for lathes, *see* Turning.

tubes, making from sheet materials, *see* PIPES, ETC.

twisting or bending, *see* Bending.

Welding. 56337, 56346, 56402, 56679, 56685, 56746, 56928, 56982, 56983, 56991, 57018, 57061, 57106, 57140, 57205, 57294, 57473, 57569, 58019, 58042, 58159, 58255, 58298, 58339, 58389, 58646, 58656, 58689, 58696, 58828.

welding guns, *see* Welding, etc.

winding metal sheets, *see* Bending.

Metallic bodies produced by stamping and brazing,
see METAL WORKING.

Metallic oxides, *see* CHEMICAL COMPOUNDS, ETC.

Metallic surfaces, corrosion preventing, *see* INCRUSTATION, ETC.

Metals alloys obtaining and depositing by electrolysis, *see* ELECTROLYSIS,
ETC.

Metals, casting, *see* CASTING METALS.

Metals, degreasing apparatus, sealing devices for, *see* INCRUSTATIONS, ETC.

**METALS, EXTRACTING AND REFINING (EXCEPTING IRON AND STEEL
MANUFACTURE AND ORES, TREATING). XXXIII(7).**

(Process and apparatus for obtaining oxides, hydrates, oxyacids and salts from which metal is stated to be obtained by unspecified or by known methods are indexed only under CHEMICAL COMPOUNDS, etc. Steps in processes for the treatment of Ores involving improvements in connection with drying, grinding, mixing, roasting, sifting and washing are indexed under headings denoting such operations.)

Amalgamating and extracting metals by mercury. No case.

crucibles and melting pots, *see* Miscellaneous.

Cyaniding. 57200, 57262.

Distilling. 57027, 59084.

Dry processes of extraction, other than distilling and refining. 57483,
57909, 57910, 58320, 58936, 58953, 59199.

Liquating. No case.

metals extracting by reduction in molten or fused state, *see* Dry processes,
etc.

METALS, EXTRACTING, ETC.—contd.

Miscellaneous—

Injection nozzle. 57911.

Removing dissolved gases from molten metals. 58294.

Roasting and reduction smelting. 59191.

Smelting. 58348.

ores reducing by solid reducing agents and heated by gases, etc., *see* Dry processes, etc.

Refining (including recovering tin and other metals from scrap but excluding processes which form part of extraction). 58750, 58936.

refining iron, *see* IRON AND, ETC.

Thermo-aluminic and like mixtures and metals extracting processes.

No case.

Wet processes (other than cyaniding and amalgamating). 56276, 56389, 56725, 57200, 57889, 58044, 58116, 59065.

Metals extracting by separating other metals from ores and the like, *see* METALS, EXTRACTING, ETC.

Metering of telephone subscribers' call, *see* TELEPHONES, ETC.

Meters, electric, *see* MEASURING, ETC.

Meters, indicating mechanism for, *see* INDICATING, ETC.

Methylol derivative, *see* CARBON COMPOUNDS, ETC.

Mica and other natural occurring material of constructive utility, *see* INDIA RUBBER, ETC.

Microbicidal composition, *see* DISINFECTING, ETC.

Microscopes, *see* PHILOSOPHICAL, ETC.

Milk treatment for storage, *see* FOOD, ETC.

Milking machines, *see* FOOD, ETC.

Milling cutters, sharpening of, *see* POLISHING, ETC.

Mineral oils, purifying, *see* OILS, ETC.

Miners and like safety lamps, *see* LAMPS FOR, ETC.

MINING, QUARRYING AND WELL SINKING. XXVIII(3).

acoustic well logging apparatus, electric, *see* MEASURING, ETC

Boreholes, wells, shafts and tunnels—

Linings, tubings and the like. No case.

Miscellaneous—

Perforating well casings. 57196.

Wells (other than linings). 56963.

Boring earth and rock—

Cores, rods and tubes, extracting and the like. No case.

Drills, other than rotary. No case.

Miscellaneous. No case.

Rotary drills. 56836, 57762, 57900, 59016.

hydraulic mining, *see* EXCAVATING.

Mines and quarries. 59171.

rotary machines for digging and, *see* Boring, etc.

perforators guns, *see* METAL WORKING.

perforating well casings metal, *see* Boreholes, etc. (Miscellaneous) also METAL WORKING.

Mite control compositions, *see* DISINFECTING, ETC.

MIXING AND AGITATING MACHINES AND APPLIANCES. XXXIV(3).

(Mixing and agitating apparatus of interest only as a part of apparatus for other purposes is indexed only under heading for such apparatus.)

This heading does not include CENTRIFUGAL MACHINES; INJECTORS; Carburettors (INTERNAL COMBUSTION ENGINES); SPRAY PRODUCERS; and VALVES).

Batch mixers (i.e., non-continuous discharge apparatus for solid and liquid materials)—

Moving containers. 57068.

Stationary containers. 56606, 57069, 58248, 58519.

Continuous discharge apparatus—

Moving containers. 58631.

Stationary containers. 56565, 57069.

Miscellaneous. No case.

Mixing fluids or solids with fluids in proportionate quantities. 56876, 57571.

Moisture content of loose material, electric apparatus for measurement of, *see* MEASURING & TESTING, ETC.

Mono-rail system, *see* RAILWAY, ETC.

Motion transmission apparatus hydraulic, *see* HYDRAULIC PRESSES, ETC.

MOTOR CONTROL SYSTEMS AND MOTOR AND LIKE CONTROLLERS, ELECTRIC. LIX(3).

contacts and contact holders for motor controllers and starters construction of, *see* ELECTRIC SWITCHES, ETC.

control system for electric motors, *see* Motor controlling, etc.

Motor controlling systems (other than construction of regulators). 57096, 57207, 57305, 57604, 58191, 58443, 58792.

rheostat or controller for controlling motors, *see* Starters.

Starters and regulators, construction of. 57416.

tap changing system for alternating current traction motors, *see* Motor controlling, etc.

Motor cycles, frame arrangement of, *see* CYCLES, ETC.

Motor fuels, *see* FUELS, ETC.

Motors, electric, *see* DYNAMO-ELECTRIC, ETC.

MOTOR VEHICLES. LI(1).

Arrangement and disposition of parts, not otherwise provided for. 56898, 56966, 57287, 57386, 58113.

arrangement of an induction pipe in an automobile, *see* Arrangement, etc. automobiles, suspensions for, *see* Frames, etc.

body details, *see* ROAD VEHICLES.

driving gear for motor vehicles, *see* Driving, transmission, etc.

Driving, transmission, balance and reversing gearing, arrangement and disposition of. 56213, 56261, 56441, 56835, 57233, 58026, 58849, 49090.

Frames and under carriage work. 56290. 56440, 57234, 57387, 59090.

gear mechanisms, *see* Driving, etc.

lock means for gear shifting mechanism, *see* Driving, etc.

metallic leaf spring suspensions, *see* SPRINGS, ETC.

mounting arrangements for superstructures on frame, *see* Frames, etc.

pipes, exhaust and inlet for cylinder engines, *see* INTERNALS, ETC.

MOTOR VEHICLES—contd.

power unit, mounting of, *see* Arrangement, etc.

speed responsive electric switches for automatic transmission control, *see* ELECTRIC SWITCHES, ETC.

Steering and controlling. 56243, 56244, 56548, 58124, 58225, 59090.

transmission systems, *see* Driving, etc.

MOTORS (MISCELLANEOUS). LXV(2).

(This heading includes animal power engines and miscellaneous types of motors such as self-driving machines; spring, weight and momentum power storing apparatus; and motors operated by variations in atmospheric temperature. Windmills and wind motors are indexed under TURBINES.)

56662, 57010, 58075.

Moulding hollow bodies, *see* MOULDING, ETC.

MOULDING PLASTIC AND POWDERED SUBSTANCES. XIII.

bags for inflatable cores of moulds, *see* Moulds.

capsules, making by extrusion, *see* Extrusion, etc.

Casting with non-metallic liquids for flowing paste. 56292.

Centrifugal and rotary machines for moulding (including other machines and processes for making pipes and tubes). 56292, 56472, 57405, 57618, 57743, 58084.

compressing granular material into briquettes when rotating, press for, *see* Presses, etc.

concrete pipes cast centrifugally, *see* Centrifugal, etc.

die head for extrusion of thermoplastic material, *see* Extrusion machines.

Extrusion machines. 56242, 56248, 56277, 56398, 57028, 57042, 57364, 57470, 57543, 57616, 57671, 57682, 57683, 58178, 58712, 59132, 59195.

formed carbon articles making, *see* Miscellaneous, etc.

India rubber, processes and apparatus for moulding, not covered by other subdivisions. 58579, 58637, 58728.

injection moulding of plastics, *see* Miscellaneous.

Miscellaneous processes and apparatus—

Bonding of metal to moulded composition and subjected to moulding conditions. 57094.

Carbon block pellets. 58315.

Cellular resins. 56797.

Foamed vinyl resin. 56798.

Formed carbon articles. 58556.

Injection moulding. 56666.

Moulding abrasive wheels. 56755.

Moulding granular mineral material. 56768.

Moulding hollow bodies. 56987.

Moulding refractory bricks. 57559.

Moulding resinous composition bonded with metal. 57459.

Moulding types for spinning rollers. 58968.

Moulds. 57109.

Plastic lenses. 58939.

Resins rendering porous. 58263.

Tablet making. 57671, 57775, 58296.

Shaping synthetic plastic material. 58988.

MOULDING PLASTIC, ETC.—contd.

- moulding granular mineral materials, *see* Miscellaneous.
- moulding refractory bricks, *see* Miscellaneous, etc.
- Moulds. 56987, 57109, 57481, 57805.
- moulds for casting concrete poles *in situ*, *see* BUILDINGS, ETC.
- pellets, making by suction ejection, *see* Extrusion, etc.
- Phonograph records, processes and apparatus for not covered by other sub-divisions. No case.
- Presses, mechanical. 56484, 58616.
- Pulp, process and apparatus for moulding not covered by other sub-divisions. No case.
- Shaking, jiggling and tamping machines. No case.
- Shaping by rollers. 56335, 58637, 59039.
- Spreading by pressure against moving or fixed formers (plunger-operated). No case.
- tablet making, *see* Miscellaneous, etc.
- tyre covers, making, *see* Wheel tyres, etc.
- Wheel tyres (process and apparatus for making not covered by other sub-divisions). 57352, 58323, 58579.
- Moulding rubber articles, *see* MOULDING, ETC.
- Moulds for casting, metals, *see* CASTING, ETC.
- Mucic acid derivatives, *see* CARBON COMPOUNDS, ETC.
- Multi channel carriers communication system, *see* WIRELESS, ETC.
- Multiplex communication systems, *see* TELEPHONES, ETC., WIRELESS ETC., and TELEGRAMS, ETC.

MUSIC AND MUSICAL INSTRUMENTS. LX(2).

- Miscellaneous musical instruments. No case.
- Music. No case.
- Organs, harmoniums. No case.
- Pianos. No case.
- Stringed instruments (excepting pianos). No case.
- Time indicators, musical. No case.
- Wind instruments (excepting organs and like). No case.
- Mask acid, *see* CARBON COMPOUNDS, ETC.
- Mutants of penicillium genus, *see* DISINFECTING, ETC.

N

NAILS, HOOKS, COTTERS, PINS. STAPLE WEDGES AND WOOD SCREWS. LXIV(6).

- Cotters, gibs and pins for cottering. No case.
- drawing pins, *see* Miscellaneous.
- Hooks. No case.
- machines for grinding nails, pins, etc., *see* GRINDING, ETC.
- Miscellaneous—
 - Drawing pins. 58332.
 - Nailing, stapling and wire-stitching. 56478.
 - Nails, spikes, tacks and woodscrews. No case.
 - Wedges. No case.
- Nails, making, *see* METAL WORKING.
- Naphthalene derivatives, *see* CARBON COMPOUNDS, ETC.
- Needle clamping device for sewing machines, *see* SEWING, ETC.

NAILS, HOOKS, ETC.—contd.

Nets making by extruding plastic making, *see* MOULDING, ETC.

Niobium oxyquinolate, *see* CARBON COMPOUNDS, ETC.

Nitrates, amino-alkanes, *see* CARBON COMPOUNDS, ETC.

Nitrates inorganic, *see* CHEMICAL COMPOUNDS, ETC.

Nitric acid, *see* CHEMICAL COMPOUNDS, ETC.

Nitrofuran and derivatives, *see* CARBON COMPOUNDS, ETC.

Nitrogenous compounds organic, *see* CARBON COMPOUNDS, ETC.

NON-METALLIC ELEMENTS. IV(2).

Carbon, charcoal and graphite. 56598, 58007, 58314, 58316, 58317, 58437.

Elements other than carbon, halogens, hydrogen, nitrogen, oxygen and sulphur. 57769.

Halogens. 58292, 58891.

Hydrogen. No case.

Nitrogen. 58897.

Oxygen and ozone. No case.

Sulphur. 57130, 59217.

Nor-testosterone analogues, *see* CARBON COMPOUNDS, ETC.

Nozzles for bottles, *see* STOPPERING, ETC.

Nozzles for injecting molten metals into reactive medium, *see* METAL EXTRACTING.

Nozzles for spraying, *see* SPRAY, ETC.

Nuclear reactors, *see* CHEMICAL PROCESSES, ETC.

Number drums for counting mechanisms, *see* INDICATING, ETC.

Nuts hulling, husking or decorticating, *see* GRAINS, ETC.



Oil burners, *see* BURNERS, ETC.

Oil fuels, *see* FUEL, ETC.

Oil stoves, burners for, *see* BURNERS, ETC.

OILS AND LUBRICANTS. XI(2).

(Steps in processes for the production of oils involving improvements in connection with cooling, distilling, filtering, heating and mixing are indexed under headings denoting such operations.)

Lubricants—

Lubricants for fibres and unclassified. 58097.

Lubricants for machinery. 56512, 56693, 56694, 57041, 57113, 57409, 58097, 58134, 58484, 58485, 58486, 58605, 59036.

Oils (excepting fats and fatty oils and oils for fuel and motive power purposes and lubricants)—

Composition and modified oils (other than for lubricating). No case.

Extracting. No case.

Purifying. 56357, 56664, 57128, 57456, 57457, 57458, 58230, 59170.

removing contaminants, *see* Oils, etc. (Purifying.)

Oils, animal or vegetable neutralisation of, *see* FATS, ETC.

Oils drying, *see* FATS, ETC.

Oils, vegetable, bleaching and purifying, *see* FATS, ETC.

OILS AND LUBRICANTS—contd.

- Oils, vegetable, extracting, *see* **FATS, ETC.**
Olefines, polymerization, of, *see* **CARBON COMPOUNDS, ETC.**
Opening fibres other than by liquids, *see* **SPINNING, ETC.**
Ordnance system, *see* **SMALL ARMS, ETC.**
Ore washing, *see* **WASHING, GRANULAR, ETC.**
Ores, concentration by washing, *see* **WASHING GRANULAR, ETC.**
Ores reducing or extracting metals from, *see* **METALS EXTRACTING, ETC.**
Ores, roasting or sintering, *see* **ORES, ETC.**

ORES, SLIMES, AND MINERAL RESIDUES, TREATING (BRIQUETTING, CHLORINATING, ROASTING AND LIKE PROCESSES). XXXIII(8).

(This heading is not exhaustive of all processes of treating ores, but is limited to processes as defined by the terms of the sub-headings.)

- agglomerating finely ground ores for concentration, *see* **Briquetting, etc.**
Briquetting and other agglomerating processes. 58104, 59176.
Chlorinating, chloridising and like processes. 56370, 56683, 56986.
cooling apparatus and processes applicable to sintering machines, *see* **Open-pan roasting, etc.**
Deoxidising, dephosphorising processes for removing undesired constituents from ores, prior to extraction. 56986, 57050, 57483, 58871.
Miscellaneous—No case.
Open-pan roasting and sintering processes and apparatus. 57410, 57860, 58855, 59173, 59174, 59175, 59177, 59178.
Sulphatising, sulphidising processes. 57651.
Ores treating by chlorination, *see* **ORES, ETC.**
Organic esters, *see* **CARBON COMPOUNDS, ETC.**
Organo metallic compounds, *see* **CARBON COMPOUNDS, ETC.**
Organic nitrogen compounds, *see* **CARBON COMPOUNDS, ETC.**

ORNAMENTING. LXVI(6).

56483, 57192.

- Ornamenting sheet material, *see* **ORNAMENTING.**
Orthophosphates, metallic, inorganic, *see* **CHEMICAL COMPOUNDS, ETC.**
Oscillators, electric, *see* **WIRELESS, ETC.**
Ovens domestic, *see* **STOVES, ETC.**
Overvoltage or lighting arrestors, *see* **ELECTRIC SUPPLY, ETC.**
Oxalates, *see* **CARBON COMPOUNDS, ETC.**
Oxazole derivatives, *see* **CARBON COMPOUNDS, ETC.**
Oxazolidones, *see* **CARBON COMPOUNDS, ETC.**
Ox-diazole compounds, *see* **CARBON COMPOUNDS, ETC.**
Oxides, metallic, *see* **CHEMICAL COMPOUNDS, ETC.**
Oxonorleucine compounds, *see* **CARBON COMPOUNDS, ETC.**

F

- Packages for sterile surgical articles, *see* **PACKING, ETC.**

PACKING AND BALING. XL(5).

Bailing presses. 57841.

Bales. No case.

PACKING, ETC.—contd.

Bale-ties, bale-tie fasteners and strainers (wire, code, strap and rod type). 56687, 59223.

machine for feeding tubular bag foils for packing, *see* Packing, etc. (Packeting, etc.).

packages for sterile surgical articles, *see* Packing and drapping, etc. (Articles packing, etc.)

Packing and wrapping up for transit and storage—

Articles packeting singly or collectively in formed receptacles (including preliminary assembly and arrangement). 57379.

Granular, plastic and powdered materials, packeting in formed receptacles. No case.

Materials and goods making up into special packages and parcels. 56691.

Miscellaneous. No case.

Packeting by wrapping up in bags, sheets and blanks. 56366, 58764, 59119.

Parcelling by bundling, machines and apparatus for. No case.

Unpacking. No Case.

Paddy roasting device, *see* GRAINS AND SEEDS, ETC.

Pads for mounting rails, *see* RAILWAY, ETC. (PERMANENT WAY, ETC.)

Painting surfaces, *see* PAINTS, ETC.

PAINTS, PAINTING AND THE LIKE. XII(3).

(This heading does not include BITUMINOUS EMULSIONS ; PLASTIC COMPOSITIONS ; polishing compositions for furniture (see SOAPS, ETC.) and enamels and glazes (see GLASS MANUFACTURE).

Coating and painting surfaces (other than those of continuous lengths of flexible materials in open condition). 56419, 56451, 57114, 57192, 57427, 57537, 57702, 57923, 58220, 58326, 58438, 58726, 58884, 59038, 59263.

Coating compositions, non-drying and non-setting and compositions applied melted. 58884.

coating pipes with cementitious materials, *see* Coating and etc.

Luminous paints and compositions. No case.

Paints and varnishes, removing. No case.

Paints, varnishes and other coating compositions, drying by exposure other than luminous paints—

Distempers and water paints. No case.

Miscellaneous. No case.

Paints containing carbohydrates, cellulose, and India rubber and like gums. No case.

Paints containing oils, fats, soaps and resins (natural and synthetic) and waxes. 56538, 56718, 57658, 58735, 57859, 58451, 59043.

Paints (other than distempers) containing asphalts, bitumens, tars and pitches. No case.

Pigments. No case.

Panels, artificial for buildings, *see* BUILDINGS, ETC.

Panels for casting concrete walls, *see* BUILDINGS, ETC.

PAPER. XXIV(4).

creping papers, *see* Miscellaneous.

digesting plant fibres with alkalis, *see* Pulp, etc. (Processing using alkali.)

Materials, fibrous. 59077.

PAPER.—contd.

Miscellaneous—

Brightening of paper. 56485.

Craped paper. 58052.

Treating bamboo. 57267.

Paper, boards and compound paper. 58588, 58603, 59076.

Paper-machines and paper-forming apparatus. 56889, 57169, 57170, 58588, 58603, 58889.

Pulp, preparation of—

Apparatus (including pulping engines). No case.

Processes using alkali. 57267, 58093, 58947.

Processes using substance other than alkalis. 57851.

Waste products, treatment and utilisation of. No case.

Paper creping, *see* PAPER.

Paper or paper board making machine, *see* PAPER.

Paper tubes for winding yarns, *see* SPINNING, ETC.

Parachute harness, *see* DRESS, ETC.

Paraffin wax, *see* WAXES, ETC.

Pavements, concrete ripping implements, *see* ROADS AND, ETC.

Pencils, *see* WRITING APPLIANCES.

Pencils, manufacture of, *see* WRITING, ETC.

Penicillin compounds of known constitution or structures, *see* CARBON COMPOUNDS, ETC.

Penicillin preparations, pharmaceuticals, *see* DISINFECTING, ETC.

Penicillium genus, mutants of, *see* DISINFECTING, ETC.

Peptides, *see* CARBON COMPOUNDS, ETC.

Perforating well casing metallic, *see* METAL WORKING.

Perforating well casings, *see* MINING, ETC.

Permanent magnets, construction of, *see* DYNAMO, ETC.

Perspiration inhibiting device, *see* TOILET, ETC.

Pest control compositions, *see* DISINFECTING, ETC.

Pesticidal compositions, *see* DISINFECTING, ETC.

Petroleum distilling, *see* DISTILLING, ETC.

Pharmaceutical compositions, *see* DISINFECTING, ETC.

Phase modulating electric oscillations, *see* WIRELESS, ETC.

Phase modulators for wireless signalling, *see* WIRELESS, ETC.

Phenothiazines and derivatives, *see* CARBON COMPOUNDS, ETC.

Phenthiazine, *see* CARBON COMPOUNDS, ETC.

Phenthiazine compound and derivatives, *see* CARBON COMPOUNDS, ETC.

Phenyl carbamate, *see* CARBON COMPOUNDS, ETC.

Phosphates, inorganic, *see* CHEMICAL COMPOUNDS.

PHILOSOPHICAL INSTRUMENTS. XXXVIII(2).

(This heading includes surveying, navigational, astronomical instruments, and thermometers, meteorological and mathematical instruments and miscellaneous physical apparatus.)

Angles, measuring levels, plumb rules and like. 56334.

cinematograph film, optical arrangement for projection, *see* Optical, etc.

(Projection, etc.).

PHILOSOPHICAL, ETC.—contd.

- compasses and dividers, *see* Mathematical, etc.
- distance detecting devices, optical, *see* Optical, etc. (Miscellaneous).
- Mathematical drawing appliances. 56782, 58710.
- Miscellaneous philosophical instruments. No case.
- Optical apparatus—
 - Miscellaneous—
 - Distance detecting devices. 58562.
 - Microscopes. 59044.
 - Spectrometers. 57685.
 - Projection apparatus, optical. 57891, 57922.
 - Systems or combinations of refracting and reflecting elements. 58939.
 - reelers drawing, *see* Mathematical, etc.
 - spectrometers, *see* Optical, etc. (Miscellaneous).
 - Thermometers and pyrometers. No case.
 - Phonograph cabinets, *see* PHONOGRAPHS, ETC.

PHONOGRAPHS AND LIKE SOUND RECORDING AND REPRODUCING INSTRUMENTS. LX(3).

(This heading does not include sound measuring and locating).

- cabinets for, *see* Cases, etc.
- Cases and stands. 56784.
- Driving, speed regulating and indicating, starting and stopping. 56207, 56208.
- Electric and magnetic machines, general design of. 56207, 56208, 56426, 57203, 57204, 57575, 59246.
- magnetic tape recorders, *see* Electric. etc.
- Mandrels and turntables. No case.
- Miscellaneous. No case.
- Multiple machines, mechanical, general design of. 53211.
- Optical systems of recording. No case.
- Records, mechanical. No case.
- Sound boxes. No case.
- Sound magnifying, modifying and directing appliances. No case.
- sound recording and reproducing, magnetically apparatus for, *see* Electric, etc.
- Tone-arms. No case.
- Working in association with cinematographs and musical instruments.
 - (Includes only systems or combinations of apparatus. Specified types of apparatus are indexed under various headings for such apparatus.)
 - No case.

Phosphates, inorganic, *see* CHEMICAL COMPOUNDS, ETC.

Phosphor compositions for discharge lamps, *see* LUMINESCENT, ETC.

Phosphoric acid, *see* CHEMICAL COMPOUNDS, ETC.

Photographic type composing, *see* PHOTOGRAPHY.

PHOTOGRAPHY. XXXVIII(3).

- Automatic and coinfreed apparatus for taking and finishing photographs. No case.

PHOTOGRAPHY.—contd.

Cameras (including shutters). 57221.

centering and quadding mechanism for photo composing machine, *see* Photographic type, etc.

Cinematograph picture films and lantern slides. No case.

cinematographic film printing machine, *see* Printing, etc.

cinematographic film processing machine, *see* Trays, etc.

Colour photography. *56814, 58952.

contact printers, *see* Printing, etc.

Dark rooms, studios and studio accessories. No case.

developers for, *see* Developing, etc.

Developing and other chemical treatment (other than apparatus). 57311, 59244.

dyed relief records forming of by developing and other chemical treatment, *see* Developing, etc.

Enlarging, copying and reducing. 59245.

feed mechanism for photo-type composing machine, *see* Photographic type, etc.

Miscellaneous—

Registering cinematographic films. 58952.

optical printers, *see* Enlarging, etc.

Photographic type composing. 58509, 59134.

Photo-mechanical printing surfaces producing. 57399, 58762.

Plates and films, auxiliary holders for (separate from camera). No case.

Plates, films and papers. No case.

Printing, apparatus for. 56779, 57311, 59245.

Surveying, aeronautical, panoramic photography. No case.

Trays, dishes and apparatus for developing, fixing, washing, etc. 56779.

Photosensitive printing plates, *see* PHOTOGRAPHY.

Phthalic acids, *see* CARBON COMPOUNDS, ETC.

Phthalocyanine dyes, *see* CARBON COMPOUNDS, ETC.

Phenol-formaldehyde resins, *see* CARBON COMPOUNDS, ETC.

Pickers for looms, *see* LOOMS.

Pickers, testing machine for, *see* LOOMS.

Piezoelectric devices, *see* WIRELESS, ETC.

PILES AND PILE DRIVING. XXVIII(4).

Concrete piles, other than piles made by driving preparatory piles or shells. 57203.

Driving and withdrawing. 56250, 58755 foot of a pile, *see* Hoops, etc.

Hoops, caps, saddles, shoes and screwpoints. 57361.

Miscellaneous. No case.

Piles made by driving preparatory piles or shells. 57523.

pipes and tubes hydraulic presses, for driving into ground, *see* HYDRAULIC PRESSES, ETC.

Sheet and other metal piling. No case.

Pimelic acid, *see* CARBON COMPOUNDS, ETC.

Pins, *see* NAILS, ETC.

Pipe forming collars thereon, *see* METAL WORKING.

PIPE-JOINTS AND LIKE COUPLINGS. XLVIII(1).

(This headings does not include wire and rod couplings for which see **ELECTRIC COUPLINGS.**)

Angles pieces, bends, crosses, elbows, tees and like junction pieces. 58465.

Ball and swivel joints. No case.

clamps for hose pipes, *see* **FASTENINGS, ETC.**

Couplings, hose and disconnectible. 56312, 56455, 57757, 57868, 58194.

flanges units or junction pieces, *see* angle pieces, etc.

flexible hose line assembly, *see* Couplings etc.

Formed by molten metal and by welding. No case.

joining plastic piper by application of heat, *see* Joints other than.

Joints, other than easily removable, packed or welded. 59023, 59075.

Joints, packed and caulked. No case.

joint making packings, *see* **STEAM, ENGINES.**

Miscellaneous. No case.

Plates, walls and other plane surfaces, joining tubes to. 57545, 59158

spigot and socket, joints with packing, *see* Joints, packed, etc.

spigot and socket, joints without packing, *see* Joints, other than etc.

thermoplastic tubes, joining to metal endplates, *see* Plates, etc.

wire and rod couplings, *see* **ELECTRIC COUPLINGS.**

Piperazine derivatives, *see* **CARBON COMPOUNDS, ETC.**

Piperidine, *see* **CARBON COMPOUNDS, ETC.**

Piperidium compounds, *see* **CARBON COMPOUNDS, ETC.**

Piperidyl carbinols, *see* **CARBON COMPOUNDS, ETC.**

Piperazines, *see* **CARBON COMPOUNDS, ETC.**

Piperazo-pyredazines, *see* **CARBON COMPOUNDS, ETC.**

Piperidine compound and derivatives, *see* **CARBON COMPOUNDS, ETC.**

PIPES AND TUBES. XLVIII(2).

apparatus for covering rubber tubes with reinforcing thread cover *see* Hose, etc.

Cement and like pipes and tubes. No case.

Cleaning. 56958, 57261, 58221.

coating pipes with cementitious materials, *see* **PAINTS, ETC.**

conduit of elastomeric material, *see* Hoes, etc.

cutting or cropping, *see* **METAL WORKING.**

Hoses and other flexible pipes (including non-fledible, India rubber, gutta percha and leather pipes). 56455, 58345, 59101.

Metal pipes and tubes. 56246, 56667, 56668, 57127, 57168, 57453, 57548.

metal pipes and tubes making, *see* **METAL WORKING.**

Miscellaneous—

Transportable irrigation pipe lines. 57756.

multitubular structures, plastic *see* Pipes and tubes, etc.

Pipes and tubes, not otherwise provided for. 56608, 57042, 57279, 58084, 58169, 58701.

pipes moulding from cementitious material, *see* **MOULDING, ETC.**

Repairing, stopping leakages in and supporting pipes. No case.

tubes and pipes extruding off, *see* **MOULDING, ETC.**

tubes made of reinforced plastic material, *see* Pipes and tubes, etc.

PIPES AND TUBES—contd.

- tubes made from sheet materials, *see* Metal pipes, etc.
- welded tubes, *see* Metal pipes, etc.
- Pipes and tubes moulding, *see* MOULDING, ETC.
- Pipes assembling or coupling, *see* PIPE-JOINTS, ETC.
- Pipes, concrete, moulding apparatus, *see* MOULDING, ETC.
- Pipes, couplings for, *see* PIPE-JOINTS, ETC.
- Pipes, manufacturing from plastic material, *see* MOULDING, ETC.
- Pipes, tubes and metallic hollow bodies, stretching by rolling, *see* METAL WORKING.
- Pistons and piston rods, *see* STEAM ENGINES, ETC.
- Piston ring assembly, *see* STEAM ENGINES, ETC.
- Piston valves, construction of, *see* VALVES, ETC.
- Pistons or cylinder heads of Internal combustion engines, *see* INTERNAL COMBUSTION, ETC.
- Pivot centre for wear adjusting, *see* BEARINGS, ETC.
- Planting machines, *see* AGRICULTURAL, ETC.
- Plants, composition for promoting growth, *see* MANURES, ETC.
- Plastering, building, *see* BUILDINGS, ETC.
- Plastic base, printing pictures on, *see* PRINTING.

PLASTIC COMPOSITIONS. XII(2).

(This heading comprises mouldable compositions which usually set, compositions containing bitumen, resins, fats, oils and waxes and organic derivatives as important constituents are indexed here. India rubber compositions are indexed under INDIA RUBBER. Steps in processes for the production of plastic compositions involving improvements in connection with drying, emulsifying, grinding, crushing and pulverising, mixing, and testing physical qualities are indexed under headings denoting such operations.)

Albumen, casein cellulose, dextrine, gelatine, glue, molasses, starch, and sugar compositions, but not containing constituents stated (below). 56381.

Bituminous compositions. 57742, 58583.

cellulosic plaster compositions, *see* Albumen, etc.

Compositions containing clay, cement, porcelain and like, but not containing constituents stated above. No case.

Oils, fats, higher fatty acids, soaps and condensates from tar distillation compositions containing, but not bitumen, or resins, gums and waxes. No case.

polymeric materials, *see* Resins.

polymerisation and resinous condensation product, *see* CARBON COMPOUNDS.

Resins, resinates, gums and waxes containing but not bitumen. 56311, 56671, 56755, 56847, 57341, 57601, 57632, 57725, 57726, 57903, 57976, 58306, 58397, 58452, 58583, 58640, 58727, 58761, 58780, 58884, 59047, 59243, 59263.

Unclassified compositions. No case.

vinyl compositions, *see* Resins, etc.

Plastering walls and the like, *see* BUILDINGS, ETC.

Plastic materials, depositing on non-metallic substances electrolytically, *see* ELECTROLYSIS, ETC.

PLASTIC COMPOSITIONS—contd.

Plastic materials, shaping of, *see* **MOULDING, ETC.**

Plastic moulding machine, *see* **MOULDING, ETC.**

Plastic surfaces, painting, *see* **PAINTS, ETC.**

Plastic surfaces, treating for ornamenting, *see* **ORNAMENTING.**

Plastic tubes, moulding, *see* **MOULDING, ETC.**

Plating metals by methods otherwise than electro-deposition, *see* **TINNING, ETC.**

Platinum, electro-deposition of, *see* **ELECTROLYSIS, ETC.**

Ploughs, *see* **AGRICULTURAL, ETC.**

Plug and socket type electric couplings, *see* **ELECTRIC COUPLINGS, ETC.**

Plugs for internal combustion engines, *see* **INTERNAL COMBUSTION, ETC.**

Plywood, *see* **WOOD CUTTING, ETC.**

Plywood adhesive or glue, *see* **ADHESIVE, ETC.**

Pneumatic tire covers, *see* **WHEELS, ETC.**

Pneumatic tyres and tubes, *see* **WHEELS, ETC.**

Pneumatically raising powdery or granular material, *see* **LIFTING, ETC.**

Polishing by grinding, *see* **POLISHING, ETC.**

Polishing composition, *see* **SOAPS, ETC.**

POLISHING, SHARPENING AND ABRADING (OTHER THAN COMPOSITION). XLIII(3).

(This headings does not include polishing of grains and seeds (see GRAINS, ETC.); cleaning and polishing knives, forks after use (see WASHING AND CLEANING, ETC.); milling and filling metals (see METAL WORKING); cutting and working stone (see STONE CUTTING, ETC.); polishing compositions for furniture and boots (SOAPS, ETC.).

56318, 56358, 56510, 56755, 57089, 57745, 58137, 58685, 58826, 58836, 58908.

Polyacrylonitrile solution for making films and filaments, *see* **CELLULOSE, ETC.**

Polyacrylonitrile solution for making threads filaments, *see* **CELLULOSE, ETC.**

Polyalcohols, *see* **CARBON COMPOUNDS, ETC.**

Poly condensation products of unsaturated organic compounds, *see* **CARBON COMPOUNDS, ETC.**

Polyethylene films, *see* **CELLULOSE, ETC.**

Polyethylenes, *see* **CARBON COMPOUNDS, ETC.**

Polyglycol ether derivatives, *see* **CARBON COMPOUNDS, ETC.**

Polymeric, cellular materials, *see* **CARBON COMPOUNDS, ETC.**

Polymeric compounds, organic *see* **CARBON COMPOUNDS, ETC.**

Polymeric materials, plastics, *see* **PLASTICS, ETC.**

Polymeresable mouldable compositions, *see* **PLASTIC COMPOSITIONS.**

Polymerizing olefins, *see* **CARBON COMPOUNDS, ETC.**

Polymers, organic, *see* **CARBON COMPOUNDS, ETC.**

Polymers, preparing powder of by fusing, *see* **GRANULATING, ETC.**

Polyolefins purifying, *see* **CARBON COMPOUNDS, ETC.**

Polyolefins resinous making of, *see* **CARBON COMPOUNDS, ETC.**

Polysulphone resins, *see* **CARBON COMPOUNDS, ETC.**

Pontoons and rafts, *see* **SHIPS, ETC.**

Porous body for filtering, *see* **FILTERING, ETC.**

Portable lamps, *see* **LAMPS FOR, ETC.**

POLISHING, SHARPENING, ETC.—contd.

- Portland cement and silicious materials mixtures of, *see* CEMENT, ETC.
- Position finding by radio, *see* WIRELESS, ETC.
- Potassium persulfate, *see* CHEMICAL COMPOUNDS, ETC.
- Potentiometric recorders, *see* MEASURING AND TESTING, ETC.
- Powder, preparing of polymers by fusing, *see* GRANULATING, ETC.
- Powdered metals, compacting, *see* MOULDING.
- Powdered or granular material delivering measured quantities (by volume) of *see* MEASURES OF CAPACITY, ETC.
- Powdered substances compacting, *see* MOULDING.
- Power driven shavers, *see* CUTLERY.
- Power supply equipment, *see* ELECTRIC SUPPLY, ETC.
- Power unit, mounting on motor vehicles, *see* MOTOR VEHICLES, ETC.
- Precipitators, electrostatic, *see* MAGNETIC, ETC.
- Pregnadiene triol dione, *see* CARBON COMPOUNDS, ETC.
- Pregnane derivatives, *see* CARBON COMPOUNDS, ETC.
- Preservation of bones, *see* MEDICAL, ETC.
- Preserving and sterilising liquids, *see* FOOD, ETC.
- Presser mechanism for sewing machine, *see* SEWING, ETC.
- Presses bailing, *see* PACKING, ETC.
- Presses for extruding metals, *see* METAL WORKING.
- Presses for metal working, *see* METAL WORKING.
- Presses for printing, *see* PRINTING.
- Presses, hydraulic, *see* HYDRAULIC PRESSES, ETC.
- Pressure cookers, *see* COOKING, ETC.
- Pressure regulators fluid, *see* VALVES, ETC.
- Pre-stressed concrete structures, *see* BUILDINGS, ETC.
- Primary cells, *see* BATTERIES, ETC.
- Printers, telegraph, *see* TELEGRAPHS, ETC.

PRINTING. XXXVII(1).

(*Excepting* PHOTOGRAPHY ; TYPEWRITERS.)

- Configuration of types, faces, quads, spaces and printing and embossing surfaces. No case.
- cylinder printing machines, *see* Presses, etc.
- duplicating, *see* Stencils, etc.
- duplicators, *see* Stencils, etc.
- Embossed printing. 58977.
- Etching and engraving. 58282.
- etching electrolytically, *see* ELECTROLYSIS.
- feeding devices for printing machines, *see* Miscellaneous.
- flat bed platen printing press, *see* Presses, etc.
- hectographic copying process, *see* Stencils, etc.
- locking devices for swinging pripper system of printing presses, *see* Presses, etc.
- mechanism for effecting renewal of the supply of web material, *see* WEBS AND SHEETS, ETC.
- Miscellaneous—
 - Feeding devices. 57198.

PRINTING—contd.

Miscellaneous—*contd.*

Printing on plastic material. 58907.

Textile printing. 56410.

plastic base printing pictures on, *see* Miscellaneous.

Post-marking and franking machines. No case.

Presses (including processes thereof) for printing. 56349, 57335, 57399, 58008, 58346.

sheet delivery continuous apparatus for printing machines, *see* WEBS, ETC.

stencilling machine, *see* Stencils, etc.

Stencils, transfers and copying. 57062, 57613, 58018.

Textile printing. 56671, 57017, 57511, 57778, 58008, 58014, 58039, 58164.

Type making, setting and composing. No case.

Printing apparatus photographic, *see* PHOTOGRAPHY.

Printing by etching, *see* PRINTING.

Printing telegraph apparatus, *see* TELEGRAPHS, ETC.

Printing textiles, *see* PRINTING.

Production of textile fibres impregnated with plastic binders, process for, *see* PROOFING, ETC.

Projectile fuses and apparatus for setting, *see* AMMUNITION, ETC.

Projectiles, self-propelled, *see* AMMUNITION, ETC.

Projectiles devices for correction of direction of travel of, *see* AMMUNITION, ETC.

Projectiles, ammunition, *see* AMMUNITION, ETC.

Projection screens for displaying optically projected images, *see* PHILOSOPHICAL, ETC.

PROOFING FABRICS AND PERMEABLE MATERIALS. XXIII.

adhesive coated fabrics, *see* Fabrics, coated, etc.

coating fabrics with aqueous colloidal dispersions, *see* Fabrics coated, etc.

Coating yarns, threads and webs with liquid and plastic materials, apparatus for and processes dependant on such apparatus. 56454, 56612, 56646, 58535, 58767, 58890, 59029, 59108, 59126.

Fabrics, coated with liquid and plastic materials. 56454, 56516, 56646, 56906, 57259, 57565, 57625, 57626, 57627, 57975, 58753, 58761, 58958.

fabrics, coated with polythene film, *see* Fabrics, coated, etc.

Fabrics composed of threads or fibrous materials united by adhesives. 57826.

Fabrics, compound and compound sheet materials. 56582, 57094, 57095, 57459, 57975, 58071, 58078, 58323, 59198.

Fabrics, miscellaneous—No case.

fibres protecting against micro-organisms, *see* Proofing, etc. (Processes).

glass fibres compound sheet material, *see* Fabrics coated, etc.

laminated sheets, *see* Fabrics, compound, etc.

plastic coating of base fabrics *see* Fabrics coated with liquid and etc.

proofing fabrics by impregnation, *see* Proofing, etc.

Proofing permeable materials against air, bacteria, chemicals, fire, fungi, moisture and vermin (includes only impregnation and hot coating)—

Compositions and materials. 57223, 57224, 57252, 57603, 57937, 58640.

Processes. 56612, 56646, 56956, 57223, 57224, 57252, 57303, 57544, 58324, 58325, 58640, 59029, 59059.

PROOFING FABRICS, ETC.—contd.

- proofing permeable materials against fire, *see* Proofing composition.
- protective clothing, preparation of, *see* Fabrics coated with, etc.
- synthetic fibres, proofing of, *see* Proofing (Processes).
- treating bamboo matting with resinous materials, *see* Proofing, etc. (Compositions, etc.).
- water proofing fibrous materials, *see* Proofing, etc.
- wood treating with liquids and gases, *see* Proofing, etc.
- Propane derivatives, *see* CARBON COMPOUNDS, ETC.
- Propelling aeroplanes, *see* AERONAUTICS.
- Proteins, *see* CARBON COMPOUNDS, ETC.
- Pulp, paper, *see* PAPER.
- Pulse generators, electric, *see* WIRELESS, ETC.
- Pulverising and grinding, *see* GRINDING, ETC.
- Pumps centrifugal, *see* CENTRIFUGAL AND SCREW, ETC.

PUMPS, RECIPROCATING, FOR LIQUIDS. XLVII(3).

(This heading includes only constructional features of the pumps. Arrangements and adaptation of pumps in particular machines are indexed under headings denoting such machines.)

- Actuating, mechanism for. 58635.
- Buckets and plungers, constructional details of. No case.
- Framings and carriages for. No case.
- General design of pumps (other than constructional details of specific parts like actuating mechanism, plungers, and valves). No case.
- Miscellaneous. No case.
- cylinders; *see* General design.
- Pipes, rising mains and delivery spouts. No case.
- Regulating and controlling delivery. No case.
- Valve and valve seats, arrangement of. 58635.
- Purification and treatment of sewage water, *see* SEWAGE, ETC.
- Purification of metallic halides inorganic, *see* CHEMICAL PROCESSES, ETC.
- Purifying air and gases by washing or otherwise treating with liquids, *see* GAS MANUFACTURE, ETC.
- Purifying air and gases from dust and solid impurities by filtering, *see* AIR AND GASES, ETC.
- Purifying mineral oils, *see* OILS, ETC.
- Purifying water, *see* WATER AND UNSPECIFIED, ETC.
- Purine and derivatives thereof, *see* CARBON COMPOUNDS, ETC.
- Pyrazoles, *see* CARBON COMPOUNDS, ETC.
- Pyrazolidine derivatives, *see* CARBON COMPOUNDS, ETC.
- Pyrazolopyrimidines, *see* CARBON COMPOUNDS, ETC.
- Pyridazine derivatives, *see* CARBON COMPOUNDS, ETC.
- Pyridine carboxylic acids, *see* CARBON COMPOUNDS, ETC.
- Pyridyl methyl phosphate, *see* CARBON COMPOUNDS, ETC.
- Pyrimidines, *see* CARBON COMPOUNDS, ETC.
- Pyrolysis of heavy oils, *see* DISTILLING, ETC.

Q

Quinolines derivatives, *see* CARBON COMPOUNDS, ETC.
 Quinolizine derivatives, *see* CARBON COMPOUNDS, ETC.

R

Racemates of steroids, splitting, *see* CARBON COMPOUNDS. ETC.
 Recemic bicyclic, alicyclic compounds, splitting, *see* CARBON COMPOUNDS, ETC.
 Radiation, elctetric device for detection of *see* MEASURING, ETC.
 Radiators, elctetric, *see* HEATING BY ELECTRICITY.
 Radio navigation system, *see* WIRELESS, ETC.
 Radio receivers, *see* WIRELESS, ETC.
 Raido receiving or transmittng systems, *see* WIRELESS, ETC.
 Rail securing to sleepers, *see* RAILWAY, ETC. PERMANENTWAY, ETC.

RAILWAY AND TRAMWAY PERMANENT WAY AND SYSTEMS. L.

alternating current traction motor control, *see* MOTOR CONTROL, ETC.
 apparatus for measuring curves and gradients, *see* PHILOSOPHICAL, ETC.
 arrangement for supporting overhead conductors in electric railways, *see* CONDUCTORS, ETC.
 central apparatus for railway classification yard with track retarders, *see* RAILWAY, SIGNALS, ETC.
 concrete sleepers, *see* Permanentway (Sleepers—Composite, etc.)
 control system for operating railway points, *see* Crossings, etc. (Operating, etc.).
 Crossings and points and switches for—
 Crossings. No case.
 Operating and controlling operation of points, switches and movable parts of crossings. 57080, 58797.
 Points. No case.
 Switches. 56769, 57240.
 Derailers and car replacers. No case.
 Electric railways (including electric traction) and other systems of railways and tramways (elevated, rope pneumatic, track propulsion and like). 57699, 57954, 58057.
 monorail system, switches, *see* Crossing, etc. (Switches).
 over-head electric traction systems, *see* Electric, etc.
 pads for rail mounting, *see* Chair-keyset.
 Permanent way—
 Chair-keys or wedges. 57807.
 Chairs. No case.
 Miscellaneous.—
 Monorails. 59128.
 Tamping machines for ballasts. 57577.
 Rail joints. 58133.
 Rails construction of. No case.

RAILWAY AND TRAMWAY PERMANENT, ETC.—contd.

Permanent way—*contd.*

Sleepers—

Composite and compound (including stone, glass and like and rail securing means special thereto). 56819, 56999, 58490.

Metal. No case.

Rails, securing to sleepers (other than means special to composite and wood sleepers). 57280, 57921, 58025.

Wood. 56875.

Stops fixed to permanent way. No case.

Turntables and traversers. No case.

tamping railway line ballast, machines for *see* Permanent way—(Miscellaneous).

RAILWAY AND TRAMWAY VEHICLES, BODY DETAILS, BUFFERS AND COUPLINGS AND UNDER CARRIAGES OF. LI(2).

antisway devices mounted between wheels and axles, *see* Under carriages, etc. (Wheels, etc.).

Body details (including the general design of various types of bodies). 56996, 57301.

bogie guide for mounting bodies on springs, *see* Undercarriages (Springs, etc.).

Buffers, draw gear and means for lessening shock (other than construction of springs and cushions.)—

Buffers, construction of. 58845.

Combined buffer and draw gear. 58845.

Draw gear (other than combined buffer and draw gear). 57512, 58198, 58845.

Couplings—

Automatic. 56301, 57783, 58117, 58350.

Non-automatic. 57624, 58029.

couplings for railway vehicles automatic, *see* Couplings (Automatic).

cushioning unit for draft gear, *see* Buffers, etc. (Draw gear).

knuckle type couplers, *see* Couplings (Automatic).

Miscellaneous—

Traction motor device. 56385.

resilient cushioning devices, *see* SPRINGS, ETC.

Undercarriages and underframes, details of—

Axles. No case.

Frame construction. 56384, 57301, 57845.

Springs, arrangement of and mounting bodies on. 57092, 57845, 58798.

Wheels and axles, arrangement of. 58498.

Railway brakes, fluid actuated, *see* BRAKES, ETC.

Railway cars, brakes for, *see* BRAKES AND, ETC.

Railway draw gears, *see* RAILWAY, ETC., BODY DETAILS, ETC.

RAILWAY SIGNALS AND COMMUNICATING APPARATUS. LI(3).

block signalling systems, *see* Signalling system, etc.

Controlling traffic on, staff, tablet and ticket systems for (including stopping trains independently of drivers). No case.

electromagnetic oscillations, apparatus for interaction with moving trains, *see* Track apparatus, etc.

RAILWAY SIGNALS, ETC.—contd.

- Hand levers and hand gearing (other than interlocking). No case.
- Indicating condition of bridges, tunnels, permanent way and clearance for sidings and crossings. No case.
- Indicators and like cabin apparatus for indicating setting of signals. 57031.
- Interlocking apparatus and apparatus for controlling and locking signals. 56257, 57819.
- locking device for interlocking lever frames, *see* Interlocking, etc.
- Miscellaneous. No case.
- Recording signals and indicating and recording movements and speeds on trains. 57316.
- reversers, signal, *see* Interlocking, etc.
- Rods and wires for operating points and signalling apparatus and wire and rod compensators. 57241.
- Signalling instruments. No case.
- Signalling systems (other than interlocking systems). 53326.
- Signalling to and communicating between trains and on trains. No case.
- Stopping and starting trains independently of driver and of track apparatus for interaction with moving trains. 57304.
- Track apparatus for interactions with moving trains. 56719, 56754, 57419.
- trained-end signalling situated on the track, *see* Track apparatus, etc.
- Visible and audible signals (including lamp signals). No case.
- Railway track switch, *see* RAILWAY, ETC., PERMANENT, ETC.
- Railway vehicle axle boxes, *see* BEARINGS, ETC.
- Railway vehicles, antisway devices for, *see* RAILWAY, ETC., BODY, ETC.
- Railways, brakes, for, *see* BRAKES, ETC.
- Ravjemidine, *see* CARBON COMPOUNDS, ETC.
- Reaction medium for ethylene polymerisation, *see* CHEMICAL PROCESSES, ETC.
- Receivers, radio, *see* WIRELESS, ETC.
- Receiving systems, wireless, *see* WIRELESS, ETC.
- Reciprocating electric motors, *see* DYNAMO, ETC.
- Rectifiers, electric, *see* ELECTRIC CURRENTS, ETC.
- Recovery of gold from cyanide solution, *see* METAL EXTRACTION, ETC.
- Refining hydrocarbon oils, otherwise by distilling, *see* OILS, ETC.
- Refining iron, *see* IRON & STEEL.
- Refining metals, other than iron and steel, *see* METALS EXTRACTING, ETC.
- Refining of benzene hydrocarbons, *see* OILS, ETC.
- Refining vegetable and fish oils, *see* FATS, ETC.
- Reflectors for lamps, arrangement and location of, *see* LAMPS CHIMNEYS, ETC.
- Refractories for lining furnaces and crucibles, *see* CEMENT, ETC.
- Refractory bricks, *see* BRICKS, ETC.
- Refractory substances for high temperature purposes, *see* CEMENT, ETC.
- Refrigerant compressors, *see* COOLING, ETC.
- Refrigeration compartments, *see* COOLING, ETC.
- Register circuits for telephone systems, *see* TELEPHONES, ETC.
- Reinforced concrete, prestressing, *see* BUILDINGS, ETC.
- Reinforcing elements for reinforced concrete, *see* BUILDINGS, ETC.
- Relay circuits, thermionic, *see* WIRELESS, ETC.

RAILWAY SIGNALS, ETC.—contd.

- Relays, contact making, *see* ELECTRIC SWITCHES.
- Remote control systems, electric, *see* ELECTRIC SIGNALLING.
- Rendering xylon filaments bacteriostatic, *see* PROOFING, ETC.
- Repairing of tyres, *see* WHEELS, ETC.
- Rescinnanine phosphate, *see* CARBON COMPOUNDS, ETC.
- Reserpig acid, ester, *see* CARBON COMPOUNDS, ETC.
- Reserpine and similar compounds, *see* CARBON COMPOUNDS, ETC.
- Resinous and condensation products, organic *see* CARBON COMPOUNDS, ETC.
- Resinous compositions, plastic *see* PLASTIC COMPOSITIONS.
- Resines epoxide, *see* CARBON COMPOUNDS, ETC.
- Resins for bending glass sheets, *see* ADHESIVE, ETC.
- Resins synthetic, *see* CARBON COMPOUNDS, ETC.
- Resistances electric, *see* CAPACITANCES, ETC.
- Respiratory appliances, *see* MEDICAL, ETC.
- Rheostats or controllers, for controlling electric motors, *see* MOTOR CONTROL, ETC.
- Rice flattening, device for, *see* GRAINS AND SEEDS, ETC.
- Rims for tubeless tyre, *see* WHEELS, ETC.
- Rims for wheels, *see* WHEELS, ETC.
- Rims for wheels, making by metal working processes, *see* METAL WORKING.
- Ripper implements, *see* AGRICULTURAL, ETC.
- Road traffic signalling devices, *see* SIGNALS, ETC.

ROAD VEHICLES. LII(3).

- adaptor for landing gear of a tractor for mounting the same on a rail vehicle, *see* Body details.
- applying draught, couplings for *see* Draught, appliances, for.
- Body details of road vehicles comprising design of various types of bodies including motor vehicle bodies. 56840, 57046, 57748, 59049.
- coupling for tractors and trailers, *see* Draught, etc.
- Draught, appliances for. 57088, 57270, 57783, 58363, 59050, 59160.
- hitch connections for tractors and trailers, *see* Draughts, etc.
- Rail and road vehicles, details applicable generally to. No case.

(This heading include such details as antidazzle screens, luggage racks, seats, wheel guards and wind screens and like.)

- steerable coupling between trailer and tractors, *see* Draught, etc.
- towing and coupling rods for road vehicles, *see* Draught, etc.
- trailing axle arrangement, *see* Draught, etc.
- trailers, general designs of, *see* Body details, etc.
- Undercarriages. 57490.
- weigh-carts and like vehicles, *see* Body details, etc.

ROADS AND WAYS. XXVII(3).

- Apparatus for making, and repairing (including plants for making tar macadam and cauldrons, asphalt, gravel-heating and like). 58354.
- Gratings (road surface and pavement), and manhole frames. No case.
- road rollers, *see* AGRICULTURE, ETC.
- Road scavengering, tarring, watering and other surface treatment of roads and ways. No case.

ROADS AND WAYS—contd.

Roads and ways, construction of (other than apparatus for making and repairing). No case.

surface composition for roads including rubber as constituent, *see* INDIA RUBBER, ETC.

Roasting ores in fluidized beds, *see* ORES, ETC.

Roasting ores or the like, *see* ORES, ETC.

Rods and wire operated railway signal control system, *see* RAILWAY SIGNALS, ETC.

Rollers bearings, *see* BEARINGS, ETC.

Rollers mills, grinding and crushing, *see* GRINDING, ETC.

Rollers for textile machinery, *see* SPINNING, ETC.

Rollers, land, garden and road, *see* AGRICULTURAL, ETC.

Rolling metals, *see* METAL WORKING.

Roof supports for mine working, *see* MINING, ETC.

ROPES AND CORDS. LXIV(7).

57347, 58187.

Rosins-synthetic, *see* CARBON COMPOUNDS, ETC.

Rotary drills for boring earth and rock, *see* MINING, ETC.

ROTARY ENGINES, PUMPS, AND BLOWERS AND LIKE. XLIV(3).

covers for compressors, *see* Miscellaneous.

Driving arrangements. No case.

fluid passage way for rotary pumps, *see* Working fluids, etc.

General design—

Fixed abutment type of apparatus. 56807, 58839.

Movable abutment type of apparatus. 56921.

Unclassified. No case.

Governing and regulating including valve gear and valve-actuating mechanism. No case.

Miscellaneous—

Covers for rotary pumps and compressors. 57055.

Rotor construction. 59092.

rotors, construction of, *see* Miscellaneous.

Working fluid supply. 56331.

Rotary furnaces, *see* FURNACES, ETC.

Rotary piston engines, internal combustion type, *see* INTERNAL COMBUSTION, ETC.

Rotary pumps and compressors, *see* ROTARY, ENGINES.

Rotary regenerative heater, *see* HEATING SYSTEMS, ETC.

Rubber articles, making by moulding, *see* MOULDING, ETC.

Rubber compositions, *see* INDIA RUBBER, ETC.

Rubber hose or the like flexible pipes, *see* PIPES AND TUBES.

Rugs, travelling and like pipe fabrics, *see* FABRICS WOVEN.

Rulers, drawing, *see* PHILOSOPHICAL, ETC.

Ruminants feed for, *see* ANIMALS, ETC.

S

ROTARY ENGINES—contd.

- Saddles for cycles, *see* CYCLES, ETC.
- Salicyclic acid and salts, *see* CARBON COMPOUNDS, ETC.
- Sand paper, *see* POLISHING, ETC.
- Sapogenins, *see* CARBON COMPOUNDS, ETC.
- Saws, endless band, *see* WOOD CUTTING, ETC.
- Scouring textiles, *see* DYEING, ETC.
- Scrapers or surface soil removing apparatus, *see* EXCAVATING.
- Screens, vibratory, *see* SIFTING, ETC.
- Screw drivers, *see* HAND TOOLS.
- Screwing or cutting screw threads, *see* METAL WORKING.
- Screws and bolts, *see* BOLTS, ETC.
- Seal fastening, *see* FASTENINGS, ETC.
- Sealing containers like cans and canisters, *see* STOPPERING.
- Sealing rings for rotating machine elements, *see* STUFFING BOXES.
- Seed sowing machine, *see* AGRICULTURAL, ETC.
- Selector switch circuits, telephones, *see* TELEPHONES, ETC.
- Selector switches, telephones, *see* TELEPHONES, ETC.
- Selenium cells and like light sensitive devices, *see* TELEGRAPHS, ETC.
- Selenium obtaining processes, *see* METAL EXTRACTING, ETC.
- Semi-conducting devices, *see* WIRELESS, ETC.
- Semi conductor electric circuit devices, *see* WIRELESS, ETC.
- Separating dust, fog and solid particles from air and gases other than by washing, *see* AIR AND GASES, ETC., also *see* MAGNETIC, ETC. (for electrostatic separating only).
- Separating dust, fog and solid particles from air and gases by washing, *see* GAS MANUFACTURE.
- Separating gaseous mixtures by liquefying and evaporating, *see* AIR AND GASES, ETC.
- Separating gaseous or vaporous substances, with absorbents, *see* CHEMICAL PROCESSES.
- Separating granular materials, *see* WASHING GRANULAR, ETC.
- Separating liquids by distillation, *see* DISTILLING, ETC.
- Separating liquids from one another or from solids by centrifugal means, *see* CENTRIFUGAL MACHINES, ETC.
- Separating or sorting solid particles, *see* SIFTING, ETC.
- Separators for cells, batteries and accumulators, *see* BATTERIES, ETC.
- Separators, magnetic, *see* MAGNETIC, ELECTROSTATIC, ETC.
- Serini-methyl esters, *see* CARBON COMPOUNDS, ETC.
- Sewage purification process, *see* SEWAGE, TREATMENT, ETC.

SEWAGE, TREATMENT OF. II(3).

(Treatment applicable solely for obtaining particular products are indexed under headings for such products. This heading does not include CLOSETS; FILTERING; and SIFTING.)

Bacteriological processes including aerating and oxidising processes and plants depending upon such processes. 58543.

Gravity-separation apparatus. 58543.

Processes, and plant, miscellaneous. 58058, 58568.

sewage filtering, *see* FILTERING, ETC.

SEWING AND EMBROIDERING. LXVI(7).

base and stands for sewing machine, *see* Sewing machines.

feeding mechanism for sewing machine, *see* Sewing machines.

knot-tying machines, *see* Sewing machines.

needle threaders, *see* Needles, etc.

Needles, bodkins, prickers, stilletos, needle threaders, thimbles and like tools and accessories. 57463, 57806, 57853, 57854, 58428.

presser mechanism, *see* Sewing machines.

Sewing and embroidery. No case.

Sewing machines. 56963, 57231, 57401, 57417, 57664, 57659, 57723, 57804, 58208, 58227, 58564, 58642, 58785, 59060, 59152.

Sewing machines, *see* SEWING, ETC.

Shaft for receiving healds, *see* LOOMS.

Sheaths for electric cable, *see* CONDUCTORS, ETC.

Sheet delivery apparatus for printing machine, *see* WEBS, ETC.

Sheet materials, compounds or laminated. *see* PROOFING, ETC.

Sheet metal, treating magnetically, *see* ANNEALING, ETC.

Sheets, continuous, apparatus for controlling the width of, *see* WEBS, ETC.

Sheets, feeding, *see* WEBS, ETC.

Sheets, glass, *see* GLASS, ETC.

Sheets glass bending, *see* GLASS, ETC.

Sheets or films from polytetrafluoroethylene, *see* CELLULOSE, ETC.

Sheets, plastic, shaping of, *see* MOULDING, ETC.

Shelling nuts in bulk otherwise by cracking, *see* GRAINS, ETC.

Shelling or cracking nuts, *see* GRINDING, ETC.

SHIPS AND BOATS. LIII(2).

armour and armour plating, *see* Designs, etc.

deflector for use with propellers, *see* Propelling.

Design and structural details. No case.

drag anchors, *see* Pontoons, etc.

floating docks, *see* HYDRAULIC ENGINEERING.

Pontoons, rafts and fittings and accessories, miscellaneous for. 56706.

Propelling (including propellers, screw and like). 57996, 58030.

Rigging, sails and spars for. No case.

rudders, *see* Steering, etc.

Steering and manoeuvring (other than by propellers and propelling apparatus). 58030.

Stowing, handling and launching apparatus. No case.

Towing. No case.

Shoes, *see* BOOTS, ETC.

Shrinkage preventing in fabrics by gaseous treatment, *see* DYEING, ETC.

Shrinking fabrics mechanically, *see* FABRICS, FINISHING, ETC.

Shuttles, *see* LOOMS.

Shuttlecocks, *see* GAMES, ETC.

SIFTING AND SEPARATING. XXXIV(4).

Fixed sieves. No case.

Hand sieves. No case.

Miscellaneous—

Flowing stream of gas through the materials. 58318.

Pneumatic separator. No case.

SIFTING AND SEPARATING. XXXIV(4)—contd.

Reciprocating or oscillating sieves. 56416, 57838, 57879.

Rotary sieves. 57893.

Separating by rotary pitted cylinders and between rotary rollers. No case.

Sieve with compound motion. No case.

Signal boxes, railway, *see* RAILWAY SIGNALS, ETC.

Signal lamps, *see* LAMPS FOR LIGHTING.

Signal receiving apparatus, telephones, *see* TELEPHONES, ETC.

Signal storage devices, electric, *see* ELECTRIC SIGNALLING, ETC.

Signalling by wireless signals, *see* WIRELESS, ETC.

Signalling devices for railway safety technique, *see* RAILWAY SIGNALS, ETC.

Signalling system, electric, other than telegraph and telephones, *see* ELECTRIC SIGNALLING.

SIGNALS, MISCELLANEOUS. LI(4).

Audible signals, signalling by. No case.

Boards for displaying announcements for and variable information. No case.

Miscellaneous. No case.

Road traffic, signalling apparatus for. 56994.

Shipping and marine purposes, signalling apparatus for. No case.

Signalling and advertising monogramonic apparatus for (building up letters and signs by selective combination of elements). No case.

Sounds, locating source and measuring intensity and velocity of. No case.

Visible signals, signalling by. 58289, 58638.

warning devices incorporated in speedmeters of vehicles, *see* FARES, ETC.

Silica, *see* CHEMICAL COMPOUNDS, ETC.

Silica alumina slurry adapted for conversion into catalysts, *see* CHEMICAL PROCESSES, ETC.

Sintering ores, *see* ORES, ETC.

Skin protective composition, *see* DISINFECTING, ETC.

Slag pouring arrangement or device in the production of granular material, *see* GRANULATING, ETC.

Slags producing in iron smelting processes, *see* IRON & STEEL.

Slags, producing in metal smelting processes, other than iron and steel, *see* METAL EXTRACTING.

Slates writing, *see* BOOKS, ETC.

Sleepers, railway and tramway, *see* RAILWAY, ETC., PERMANENT WAY, ETC.

Slide fasteners, *see* DRESS, ETC. also FASTENINGS, ETC.

Slippers or like footwear, *see* BOOTS, ETC.

Sliver balling and rolling, *see* SPINNING, ETC.

Sluice gates, *see* HYDRAULIC ENGINEERING, ETC.

Sluice-gates, control device for opening of, *see* HYDRAULIC ENGINEERING.

Sluice valves including gate valves and like valves, *see* VALVES, ETC.

SMALL ARMS AND MACHINE GUNS. XXXIX(6).

Ordnance and machine guns, and carriages and mountings therefor. 58784.

Small arms (including gun-cases)—

Construction other than sights and sighting accessories. No case.

Sights and sighting accessories. No case.

Weapons, other than small arms and warfare teaching. No case.

SMALL ARMS AND MACHINE GUNS. XXXIX(6)—contd.

Smelling metals, and ores (other than iron and steel), *see* METALS EXTRACTING.

Smoke absorbing chambers for chulas, *see* STOVES, ETC.

Smoker's accessories, *see* CIGARS, ETC.

Soaking pits, *see* ANNEALING, ETC.

Soap compositions, *see* SOAPS, ETC.

SOAPS AND CLEANSING, POLISHING AND ABRADING COMPOSITIONS INCLUDING METAL POLISHES). XLIII(4).

Compositions containing materials other than metals, salts thereof and soaps. 56755, 57063, 57351, 57568, 58668.

Containing metals, oxides and salt thereof. 57351, 58010, 58105, 58296, 58668.

detergents containing inorganic alkaline salts, *see* Containing metals, etc.

Polishing compositions for furniture, boots and other articles (including stains for wood). 57397, 58228.

Soaps, and saponaceous compositions, containing fats and other saponifiable materials. 56393, 56429, 56848, 56920, 57005, 57062, 57348, 57568, 57656.

Socket connectors, electric, *see* ELECTRIC COUPLINGS, ETC.

Solar heaters, receivers for, *see* HEATING SYSTEMS, ETC.

Solids, removing from gases other than by electrostatic and by washing. *see* AIR, ETC.

Solids, mixing with liquids, *see* MIXING, ETC.

Solids, separating from liquids, by filtering, *see* FILTERING, ETC.

Solids with gases, reacting in fluidized beds, *see* CHEMICAL PROCESSES, ETC.

Sound insulating coating, *see* HEATING SYSTEMS, ETC.

Sound recording and reproducing apparatus, *see* PHONOGRAPHS.

Sound recording and reproducing head mechanism for driving, *see* PHONOGRAPHS, ETC.

Spanners, *see* HAND TOOLS.

SPECTACLES AND EYEGLASSES. XXXVIII(4).

59026.

Speed responsive electric switching devices, *see* ELECTRIC SWITCHES, ETC.

Speedometers, *see* FARES, ETC.

Spindles or flyers, spinning, *see* SPINNING, ETC.

SPINNING AND TWISTING MACHINES FOR PRODUCTION OF YARNS AND THREADS. XX.

(This heading does not include the formation of artificial filaments from viscous liquids which is indexed under CELLULOSE, ETC.)

bobbin changing device, *see* Spinning, etc. (Doffing, etc.)

bobbin replacement devices in spinning frames, *see* Spinning and twisting, etc. (Doffing, bobbin, etc.)

Bobbins, pirns, spools, reels, cops, balls and wound packages of thread, twine, thin wire and like, construction of. 57547, 57892, 58169, 58390.

centrifugal spinning frames, *see* Spinning, etc. (Spinning, etc.)

charkha, *see* Spinning, etc. (Mules, etc.)

cleaning device for spinning frames, *see* Miscellaneous processes, etc.

cleaning the card clothing of carding cylinders, *see* Preparation, etc. (Carding, etc.)

SPINNING AND TWISTING, ETC.—contd.

- cop winding mechanism, *see* Winding (Other than, etc.).
- crimping yarns or threads, *see* Yarns, etc.
- doubling and twisting yarns, *see* Spinning, etc.
- draft assembly in spinning frames, *see* Spinning, etc. (Rollers, etc.)
- drafting fibres, *see* Preparation, etc. (Drawing, etc.)
- drawing frames, *see* Preparations, etc. (Drawings, etc.)
- driving arrangement for spinning machines, *see* Spinning, etc. (Driving, etc.)
- flyers for spinning and twisting frames, *see* Spinning, etc. (Spinning, etc.)
- hackling machines, preparing fibres for, *see* Preparation, etc. (Hackling, etc.)
- lap forming machine, *see* Preparation, etc. (Carding, etc.)
- lubricators for spindle bolsters, *see* LUBRICATING.
- mechanical treatment of fibres for preparing them for spinning, *see* Various subheading under "Preparation of fibrous material for spinning".
- Miscellaneous processes and accessories for spinning yarns. 56436, 57630.
- Preparation of fibrous materials for spinning—**
 - Carding engines (including apparatus for lap forming and balling sliver). 56308, 56382, 56468, 56858, 57518, 57861, 57986, 58015, 58115, 58636, 58777.
 - Combing machines. 57780.
 - Decorating, breaking, scutching and opening apparatus or flax, hemp, cotton and wool fibres. 56382, 57518, 58050, 58115.
 - Drawing frames. 56354, 56473, 56601, 57340, 57360, 57378, 58698, 58914, 59072, 59095, 59162.
 - Feeding apparatus for openers, scutchers, carding engines and like. 56356, 57030, 58499.
 - Gill boxes. No case.
 - Gins and burring apparatus. 57518.
 - Heckling machines. 57026.
 - Miscellaneous. 57156.
- preparation of laps, feeder for, *see* Preparation, etc. (Feeding, etc.)
- rollers, *see* Spinning, etc. (Rollers, etc.)
- Spinning and twisting machines—**
 - Creels and like feeding and delivery apparatus. No case.
 - Doffing, bobbin and tube applying, and like apparatus for spinning, twisting, winding and like machines. 56804, 57362, 58532, 59124, 59225.
 - Driving and stopping apparatus non-automatic including spindles and their appurtenances, driving and stopping apparatus. 56615, 56712, 58443, 58723, 58935.
 - Miscellaneous—
 - Cleaning equipment for textile machineries. 59128.
 - Cooling and cleaning arrangement. 58142.
 - Cooling electric motors for spinning machines. 58895.
 - Textile machine frame work. 58913.
 - Mules and twiners (including all spinning, doubling and twisting machines of intermittent type). 56480, 57020.
 - Rollers and roller heads. 56796, 56698, 57698, 58968, 59163, 59197.
 - Roving and thread guides, tension arrangements and roller beams (other than clearing apparatus and creel arrangement). 56249, 56372.
- Spinning and twisting machines of continuous type, and kinds of. 56348, 56506, 56544, 56616, 56870, 57001, 57253, 58425, 58718, 59225.
- Stop motions (including delivery, stopping). 57254, 57940, 58523.

SPINNING AND TWISTING, ETC.—concl'd.

spinning wheels, *see* Spinning, etc. (Mules, etc.)

stripping rolls for carding engines, *see* Preparation, etc. (Carding, etc.)

treating fibres with liquids for preparing them for spinning, *see* DYEING, ETC.

Winding (other than construction of) bobbins, spools, cops, hanks, and balls of yarns, threads, cords, ropes, wire and the like. 56467, 56614, 56675, 56741, 56799, 56923, 57542, 58114, 58357, 58532, 58611, 58670. 58899.

winding rolls or packages of sliver of jute and other long staple fibres, *see* Preparation, etc. (Carding, etc.)

Yarns and threads, finishing, dressing and testing and inspecting. 57557, 57590, 58718.

yarns or filaments, winding, *see* Winding (Other than, etc.).

Spinning metals, *see* METAL WORKING.

Spinning solutions for producing rayons and synthetic fibers, filaments and films, *see* CELLULOSE, ETC.

Spouts for cans, drums and like, *see* HOLLOW WARE.

Spray burners, *see* BURNERS.

Spray drying of materials, *see* DRYING, ETC.

Spray painting, *see* PAINTS.

SPRAY PRODUCERS AND SPRINKLERS. XXIX(2).

(The nozzles indexed here are those of general and unspecified application: spray producers and nozzles applicable, solely to particular purposes are indexed under headings denoting such purposes, such as BURNERS; FURNACES; carburettors (INTERNAL COMBUSTION ENGINES).)

aerosol containers including means to dispense measured charges, *see* Spraying, etc.

Design of jets nozzles, spreaders and atomisers. 57750, 58064.

powder spreaders, *see* Spraying, etc.

spray nozzles for agricultural and horticultural use, *see* AGRICULTURE, ETC.

Spraying and sprinkling machines, general design of (other than construction of jets and nozzles). 56458, 56516, 56942, 56949. 57114, 57496, 57504, 57706, 57759, 59164.

Spring loaded grips for hydraulic brakes, *see* BRAKES, ETC.

Spring washers, *see* BOLTS, ETC.

Springs, fluid, *see* SPRINGS, ETC.

Spraying machines, *see* SPRAY PRODUCERS, ETC.

SPRINGS AND VIBRATION DAMPERS. LII(4).

air springs, *see* Pneumatic, etc.

annular springs, metal, *see* Metallic, etc.

Buffers, resilient—shackles and other arrangements of springs with mountings complete in themselves (other than railway vehicle Buffers). No case.

Cushioning devices of general and unspecified application (including both system and arrangement of springs, and devices other than springs). 56809, 58111.

Gaiters and other detachable covers. No case.

Metallic springs, construction, form and mounting of. 57002, 57414.

Non-metallic materials, composed wholly or mainly of. No case.

SPRINGS AND, ETC.—contd.

Pneumatic and hydraulic springs, cataracts, dashpots and fluid friction vibration dampers. 56290, 57490.

springs, making or fabricating, *see* METAL WORKING.

steam and other fluid pressure hammers and presses, *see* HYDRAULIC PRESSES, ETC.

Vibration dampers (other than fluid friction). No case.

Sprinklers, *see* SPRAY PRODUCERS, ETC.

Squirrel case motors, *see* DYNAMO-ELECTRIC, ETC.

Stabilizing fabrics by gaseous treatment, *see* DYEING, ETC.

Stamping sheet metal, *see* METAL WORKING.

Stapling, *see* NAILS, ETC.

Stator for electrical machines, *see* DYNAMO-ELECTRIC, ETC.

STEAM ENGINES AND ENGINE DETAILS. XLV(3).

Connecting rods, crossheads, eccentrics, eccentric rods, and guides, engines and like. No case.

Cylinders. No case.

Distributing and expansion valves and valve gear and valve actuating arrangements. 58321.

Flywheels. No case.

gasket packings, *see* Joint making packing.

General design of steam engines and details, not otherwise provided for. No case.

Joint making packing. 56636, 57135, 58574.

Miscellaneous. No case.

piston ring assembly, *see* Pistons, etc.

pistons and piston rods (including packing therefor). 56964, 57438, 57439.

Regulating, controlling, starting, stopping and reversing steam engine. No case.

Steam separators. No case.

Vapour and vacuum engines. No case.

STEAM GENERATORS. XLV(4).

Blow down apparatus (including surface blow off apparatus). No case.

Drums, mud, steam, and water and like chambers, shells and barrels and tube plates. No case.

Feed water, supplying and controlling. 56649, 58820.

Fire boxes (locomotive and vertical boiler type). 57043, 57044.

Flues (both internal and external) and tubes, smoke, flame, fire and like. and settings. No case.

General design of (arrangement and disposition of tubes, etc.) 56571, 58386.

Heating. 56789.

Joints, jointing and connections (including expansion hooks and rings). No case.

Control for fuel supply. 58820.

Miscellaneous—

Treatment of feed water. 57325.

steam separators, *see* STEAM ENGINES.

Smoke-boxes. No case.

Stays and staying. No case.

Tubes, water, construction of. No case.

STEAM GENERATORS—contd.

Valves, application and arrangement of. No case.

vapour tubes, furnace chamber, superheating tubes. etc., arrangements of.
see General design, etc.

Water circulation, auxiliary apparatus for promoting. No case.

Steam injectors, see INJECTORS, ETC.

STEAM SUPERHEATERS. XLV(5).

Chambers, heated by combustion gases. 56789, 58386.

Coiled and sinuous tube apparatus and straight tube apparatus (other than
fire and smoke tube apparatus). No case.

Fire and smoke tube apparatus. No case.

heating by combustion gases, see Chambers, etc.

Miscellaneous. No case.

Mounting and supporting. No case.

Steam valves, arrangement of. No case.

Steel alloys, see ALLOYS.

Steel manufacture, see IRON, ETC.

Steel, surface hardening of steel, see ANNEALING, ETC.

Steering and controlling arrangements for self-propelled vehicles, see MOTOR
VEHICLES.

Stencilling machine, see PRINTING.

Sterilizing powder, see DISINFECTING, ETC.

Steroids, see CARBON COMPOUNDS, ETC.

Stokers, mechanical for furnaces, see FURNACES, ETC.

STONE CUTTING AND WORKING. XXV(3).

(Excepting boring earth and rock, see MINING ; EXCAVATING.)
No case.

Stop motion for spinning machines, see SPINNING, ETC.

Stop motion for shuttleless looms, see LOOMS.

**STOPPERING, FILLING AND OPENING. BOTTLES. JARS. AND LIKE
VESSELS. XL(6).**

(In the heading the apparatus includes also methods depending on such
apparatus.)

Apparatus for applying closures and closure devices. 58823.

Bottling (including filling cans and tubes with liquids and opening and
funnels for liquids). 56249, 57440.

Capsules closely conforming to receptacle neck, and capsule like closures.
56474, 56491, 56562, 56829, 58121, 58667, 59111.

closures held by resilient materials, see Downwardly.

crown caps, see Capsules.

dispensing liquids, other than in measured quantities, see Bottling, etc.

Downwardly seated closures held in position by other means than auxiliary
mechanical devices. 56602, 58085, 58823.

filling and sealing liquid containers, see Bottling, etc.

Mechanical retaining devices disposed in or outside and coacting with neck
of receptacles, stoppers seated by. 56474, 58121, 58382, 58667.

Miscellaneous---

Closure lining. 57377.

nozzles for bottles, see Stoppers, etc.

STOPPERING, FILLING, ETC.—contd.

screw-caps, *see* Mechanical, etc.

Stoppers adapted to act as or fitted with devices to facilitate discharge of contents or admission of liquids and gases. 56554, 56997, 57446, 57396.

Storage bins for granular pulverulent solid materials, *see* BUILDINGS, ETC.

Storage cells, electric, *see* BATTERIES, ETC.

STOVES. RANGES AND FIRE PLACES. XV(2).

(This heading includes only apparatus for producing heat by consumption of wood, coal, oil or gas for domestic purposes.)

56765, 57730, 57988, 59137.

stoves for drying tea, *see* DRYING, ETC.

wicks for stoves, *see* BURNERS, ETC.

Strainers and filters, *see* FILTERING, ETC.

Street lamps, *see* LAMPS FOR LIGHTING, ETC.

Street lamps, prism type lamp enclosures for, *see* LAMP-CHIMNEYS, ETC.

Strip coilers, *see* WEBS, ETC.

Stripping and lifting gear for ingot moulds, *see* LIFTING, ETC.

Stripping rolls for carding engines, *see* SPINNING, ETC.

Storage batteries electric, *see* BATTERIES, ETC.

Structural units, *see* BUILDINGS, ETC.

STUFFING BOXES. XLV(6).

58043, 58059.

Sublimation of volatile materials, *see* DISTILLING.

Subterranean anchorage for buildings, *see* BUILDINGS, ETC.

Suction cleaners, *see* AIR AND GASES, ETC.

Surface hardening of steel, *see* ANNEALING, ETC.

SUGAR. XVII.

(Steps in processes in sugar manufacture involving improvements in connection with distilling, evaporating, drying electrolysis filtering, grinding and crushing, mixing and agitating, and sifting are indexed under headings denoting such operations.)

Extracting sugar from raw materials, other than purifying and refining processes. 56228, 56389, 58395.

Glucose, maltose, lactose and like. No case.

jaggery manufacture, *see* Extracting, etc.

Miscellaneous—

converting nonpampable sugar mash into pampable state. 56721.

Sweetening composition. 58276.

Purifying saccharine liquids and refining sugar. 57398, 57513, 58207.

Sugar cane juices, clarification of, *see* SUGAR.

Sugar, drying of, *see* DRYING, ETC.

Sugar solutions concentrating, *see* DISTILLING, ETC.

Sulfaguanidine-formaldehyde condensation products, *see* CARBON COMPOUNDS, ETC.

Sulfonamides, *see* CARBON COMPOUNDS, ETC.

Sulphates inorganic, *see* CHEMICAL COMPOUNDS, ETC.

Sulphonic acid derivatives organic, *see* CARBON COMPOUNDS, ETC.

Sulphonyl urea, *see* CARBON COMPOUNDS, ETC.

SUGARS—contd.

Sulphur dioxide, *see* CHEMICAL COMPOUNDS, ETC.
 Sulphur trioxide, *see* CHEMICAL COMPOUNDS, ETC.
 Sulphuric acid, *see* CHEMICAL COMPOUNDS, ETC.
 Summarising or totalising machine, *see* CALCULATING, ETC.
 Superheaters, steam, *see* STEAM SUPERHEATERS.
 Superphosphate fertilisers, *see* MANURES, ETC.
 Superphosphates, *see* CHEMICAL COMPOUNDS, ETC.
 Supporting and suspending electric conductors. *see* CONDUCTORS, ETC.
 Surgical dressings, *see* MEDICAL, ETC.
 Switch-boards, electric, *see* ELECTRIC SUPPLY, ETC.
 Switches electric, *see* ELECTRIC SWITCHES, ETC.
 Switches for monorail systems, *see* RAILWAY, ETC., PERMANENTWAY, ETC.
 Synchronising electric generators and supply systems, *see* ELECTRIC SUPPLY, ETC.
 Synchronous unit or gearing, *see* MECHANISM, ETC.
 Synthetic fibres, apparatus for manufacture of, *see* CELLULOSE, ETC.
 Synthetic fibres, proofing, of, *see* PROOFING, ETC.
 Synthetic resinous compositions, *see* PLASTIC COMPOSITION.
 Syphons, hydraulic, *see* HYDRAULIC ENGINEERING, ETC.

T

TABLE ARTICLES. LXVI(8).

(This heading includes table articles like cosies, drinking vessels, egg cups, flower holders, napkins, spoons, plates, dishes, saucers and trays.)

56617.

Tablets, moulding, *see* MOULDING, ETC.
 Tablets, medicinal, *see* DISINFECTING, ETC.
 Tablets, medicinal, making machine, *see* MOULDING, ETC.
 Tachometers, *see* FARES, ETC.
 Tamping machine for tamping railway ballasts, *see* RAILWAY, ETC., PERMANENT, ETC.

TANKS AND CISTERNS. XXVIII(5).

57244.

Tantalum oxyquinolate, *see* CARBON, ETC.
 Tapering machines for metal pipes, *see* METAL WORKING.
 Taximeters, *see* FARES, ETC.
 Tea-drying and weathering apparatus, *see* DRYING, ETC.
 Tea leaves, preserving against moulds, *see* TEA, ETC.

TEA MANUFACTURE. XVIII.

(Steps in processes for tea manufacture involving improvements in connection with cooling, drying, grinding and crushing, mixing, separating or sorting, and sifting are indexed under headings denoting such operations.)

Breaking or cutting tea. 58545, 58546.

extract making, *see* DECOCTIONS, ETC.

Fermenting, tea. No case.

infusions, tea, coffee and like, apparatus for making, *see* DECOCTIONS, ETC.

TEA MANUFACTURE—contd.

Miscellaneous—

Preserving tea leaves against moulds. 58764.

Trolleys for processing tea leaf. 57684.

Rolling—

Caps, cylinders and pressure regulating means and like upper elements of horizontal rollers. No case.

Rollers and crushers, other than horizontal. No case.

Tables, doors and like lower elements of horizontal rollers (including driving gear). 57838.

Temperature control devices for rollers. No case.

Tea, coffee and cocoa preparations, and substitutes. No case.

withering tea, *see* DRYING, ETC.

Tea packing, *see* PACKING, ETC.

Telegraphic receiving system, *see* TELEGRAPHS, ETC.

TELEGRAPHS, ELECTRIC. LXI(1).

Artificial lines, attenuation equilisers, filter circuits and other impedance net works for dealing with telephone and other complex currents. 56466, 57317, 57728, 57897, 57898.

band pass filters, *see* Artificial, etc.

Code telegraphy—

Diplex, duplex and multiplex systems. 56738, 57562.

Portable or field sets. No case.

Receivers construction of. 57324.

Systems and apparatus other than receivers, relays, transmitters and diplex and like systems. No case.

Transmitters, construction of. 56650.

electric components for television receivers, *see* Television, etc.

Electric synchronous movements and synchronism indicators. No case.

facsimile system and apparatus, *see* Television, etc.

light sensitive electric devices or cells, *see* selenium, etc.

printers, telegraph, *see* Typewriting, etc.

printing telegraph apparatus, *see* Typewriting, etc.

receivers, television, *see* Television, etc.

Selenium cells and light valves in which electric and magnetic stress produces optical effects. 57843.

Television and copying and writing telegraphy. 56273, 56303, 56375, 56437, 57471, 57497, 58040, 58398, 58471, 58699, 58858, 59206, 59207.

Typewriting telegraphy. 56695, 56878, 57132, 57258, 57374, 58476.

TELEPHONES AND TELEPHONE SYSTEMS, ELECTRIC. LXI(2).

circuits using automatic selector switches, *see* Telephone exchange, etc., Automatic, etc. (Inter-exchange, etc.).

clamps for mounting telephone equipments, *see* FASTENINGS, ETC.

containers for loading coils, *see* Transmission systems.

cross bar multi switches, *see* Electric selector, etc.

Electric selector switches for telephones. 56621, 57507, 58123, 59200.

Impulse transmitters set by hand for transmitting variable numbers of electric currents in regular trains. 58799.

inter-exchange working in automatic exchange, *see* Telephone, etc. (Inter-exchange, etc.).

loading coils for transmission systems, *see* Transmission systems.

TELEPHONES, ETC.—contd.

- loud speaker, telephones, arrangement for, *see* Telephone instruments, etc. (Magnetic, etc.)
- loud speakers, *see* Telephone instruments, etc. (Magnetic, etc.)
- register circuits for automatic telephone systems, *see* Telephone exchange, etc. (Inter., etc.)
- speaker horns for magnifying directing and conveying sound. *see* Telephone instruments, etc., (Mouth pieces, etc.).
- Telephone exchange systems automatic and semiautomatic—
 - Inter exchange working. 56573, 56603, 56654, 56728, 56729, 56731, 56737, 56738, 56750, 56805, 57099, 57204, 57213, 57349, 57402, 57505, 57815, 57927, 58215, 58418, 58447, 58550, 58752, 58770, 58771.
 - Meters, and metering, etc. 58589, 58590, 59091.
 - Miscellaneous. No case.
 - Party line systems.
- Telephone exchange systems, manual—
 - Exchange switch boards and switch board equipment construction and arrangement of. No case.
 - Inter-exchange working. 57858, 59153.
 - Meters, time indicators and metering systems. 59091.
 - Miscellaneous. No case.
 - Party line systems. No case.
- Telephone instruments and sets—
 - Condenser telephones and other electrostatic instruments. No case
 - Magnetic instruments. 58937.
 - Microphone, and other variable resistance instruments. No case.
 - Miscellaneous.
 - Telephone bell ringing circuits. 58864.
 - Mouthpieces, ear pieces and other parts for conveying sound. 56784, 59077.
 - Sets. 56647, 58738.
- Telephone inter connection systems, other than exchange. 56635.
- Telephonic amplifiers and other non-contact making electric relays (other than thermionic). No case.
- Transmission systems. 57562, 58539, 58793, 58806, 58981.
- voice frequency signal receivers in automatic exchanges, *see* Telephone exchange, etc., Automatic, etc. (Inter exchange, etc.)
- Teleprinter, *see* TELEGRAPHS, ETC.
- Television, *see* TELEGRAPHS, ETC.
- Temperature controlling devices or thermostats, *see* HEATING SYSTEMS, ETC.
- Tempering and other heat treatment of metals, *see* ANNEALING.
- Tennis balls, *see* GAMES, ETC.
- Tenting or stretching fabrics, *see* FABRICS FINISHING.
- Teraphthalate dimethyl, *see* CARBON COMPOUNDS, ETC.
- Testing horse power of animals, *see* GAUGES, ETC.
- Testing physical properties of materials electrically, *see* MEASURING, ETC.
- Testo-sterone derivatives, *see* CARBON COMPOUNDS, ETC.
- Tetraaza porphin compounds, *see* CARBON COMPOUNDS, ETC.
- Tetracycline, *see* CARBON COMPOUNDS, ETC.
- Textile fabric, mechanical treatment of, for spinning, *see* SPINNING, ETC.
- Textile fabrics and yarns bleaching dyeing or like fluid treatment, *see* DYEING, ETC.
- Textile fabrics, coated with resinous materials, *see* PROOFING, ETC.

TELEPHONES, ETC.—contd.

- Textile fabrics, proofing against bacteria, moisture and vermin, *see* PROOFING, ETC.
- Textile fabrics, treating with liquids, for spinning, *see* DYEING, ETC.
- Textile fabrics treating with liquids, processes and apparatus for, *see* DYEING, ETC.
- Textile fibres drying, *see* DRYING, ETC.
- Textile fibres, drawing frame for, *see* SPINNING, ETC.
- Textile filaments artificial, *see* CELLULOSE, ETC.
- Textile materials, treating with liquids to improve resistance to creasing, *see* DYEING, ETC.
- Textile printing, *see* PRINTING.
- Textiles, treating with liquids, *see* DYEING, ETC.
- Therapeutic compositions, *see* DISINFECTING, ETC.
- Thermionic relay circuits, *see* WIRELESS, ETC.
- Thermoplastic films, *see* CELLULOSE, ETC.
- Thermoplastic polymeric mixtures, *see* PLASTIC, ETC.
- Thermoplasts production by mass polymerisation, *see* CARBON COMPOUNDS, ETC.
- Thermostats and like apparatus for regulating temperature, *see* HEATING SYSTEMS, ETC.
- Thickness gauges, electrically operated, *see* MEASURING AND TESTING, ETC.
- Thiophenylpyridylamine, *see* CARBON COMPOUNDS, ETC.
- Thiophosphoric acid esters, *see* CARBON COMPOUNDS, ETC.
- Thiophosphoric esters, *see* CARBON COMPOUNDS, ETC.
- Threadguides for winding synthetic yarns, *see* CELLULOSE, ETC.
- Thread rolling, *see* METAL WORKING.
- Tickets tubes and like receptacles, *see* FARES, ETC.
- Tiffin carriers, *see* COOKING, ETC.

TINNING, GALVANIZING AND COATING WITH METALS. XXXIII(9).

(Including treating metallic surfaces to produce modified surface.)

56293, 56306, 57150, 57174, 57175, 57176, 57177, 57178, 57179, 57180, 57181, 57182, 57183, 57205, 57244, 57938, 58137, 58326.

- Tissues, preserving for grafting, *see* MEDICAL, ETC.
- Titanium containing ores, treatment of, *see* ORES, ETC.
- Titanium oxides, *see* CHEMICAL COMPOUNDS, ETC.
- Tobacco, treatment of, *see* CIGARS, ETC.

TOILET AND PERFUMERY. XVI(9).

56393, 56464, 56502, 56611, 56688, 58824.

- Tool holders for lathes, *see* METAL WORKING.
- Tools for removing tyres from wheel rims, *see* WHEELS, ETC.
- Tooth brush, *see* BRUSHING, ETC.
- Torches electric, *see* ELECTRIC LAMPS, ETC.
- Toys, *see* GAMES, ETC.
- Tractor wheels, *see* WHEELS, ETC.
- Tractors, agricultural, *see* AGRICULTURAL, ETC.
- Tractors, fitted with spraying machines, *see* AGRICULTURAL, ETC.
- Trailers for cycles, *see* ROAD VEHICLES.
- Trailers for road vehicles, *see* ROAD VEHICLES.

TOILET, ETC.—contd.

- Transformers, electric, *see* **ELECTRIC CURRENTS, ETC.**
- Transforming mechanical value to electrical value for measurement, *see* **MEASURING, ETC.**
- Transistor amplifiers, *see* **WIRELESS, ETC.**
- Transistor circuits for generating high frequency oscillations, *see* **WIRELESS, ETC.**
- Transmission and storage of electric intelligence signals, *see* **ELECTRIC SIGNALLING, ETC.**
- Transmission of power, hydraulic, *see* **HYDRAULIC PRESSES, ETC.**
- Transmission systems for motor vehicles, *see* **MOTOR VEHICLES.**
- Transmission systems, telephones, *see* **TELEPHONES, ETC.**
- Transmitting systems wireless, *see* **WIRELESS, ETC.**
- Treating fibres and yarns with oils, emulsions and the like, *see* **DYEING, ETC.**
- Treating leather, *see* **LEATHER.**
- Treating liquid with ion exchange materials, process and apparatus for, *see* **WATER, ETC., PURIFYING, ETC.**
- Trepane derivatives, *see* **CARBON COMPOUNDS, ETC.**
- Triazine compounds, *see* **CARBON COMPOUNDS, ETC.**
- Trichloroisindolines, *see* **CARBON COMPOUNDS, ETC.**
- Tropeine derivatives, *see* **CARBON COMPOUNDS, ETC.**
- Trowels, wall-pointing tools and other hand tools for applying cements and like materials, *see* **HAND TOOLS.**
- Trucks, railway, *see* **RAILWAY, ETC., VEHICLES, ETC.**
- Tubeless tyres, *see* **WHEELS, ETC.**
- Tubes and pipe making, *see* **PIPES, ETC.**
- Tubes cleaning, *see* **PIPES, ETC.**
- Tubes, pipes and like metallic hollow bodies, stretching by rolling, *see* **METAL WORKING.**
- Turbine blade rings, *see* **TURBINES, ETC.**

TURBINES, REACTION WHEELS AND WIND MOTORS. XLIV(4).

(This heading includes also combination of these with one another or with other motors.)

- arrangements of jet engine on aircraft wings, *see* **AERONAUTICS.**
- blades for turbines, making from metal blank, *see* **METAL WORKING.**
- blades for turbines of the electric fluid type, *see* **Turbines, elastic, etc.**
- Combination plant. 58508.
- combustion chambers for gas turbines engines, *see* **Turbines elastic, etc.**
- combustion turbine, *see* **Turbines elastic, etc.**
- compressors, turbine type and turbines, rotor for, *see* **Turbines, elastic, etc.**
- exhaust ducts for gas turbines, *see* **Turbines, elastic, etc.**
- gas turbines, *see* **Turbines, elastic, etc.**
- hydraulic turbine, *see* **Turbines, hydraulic, etc.**
- kaplan turbines, *see* **Turbines, hydraulic, etc.**
- pressure exchangers for gas turbines and compressors, *see* **Turbines, etc.**
- Turbines, elastic fluid. 56352, 56353, 56776, 56778, 56854, 56944, 56977, 56978, 58487, 58623, 59051, 59061, 59210.
- Turbines, hydraulic. 56498, 56584, 59861.
- Wind motors. 57937, 57996.
- Turn buckles, *see* **FASTENINGS, ETC.**
- Twisting and winding yarns and threads, *see* **SPINNING, ETC.**

TURBINES, REACTION, ETC.—contd.

Twisting metal bars and the like, *see* METAL WORKING.

Tying or packing bales, cases and other packages, *see* PACKING, ETC.

TYPEWRITERS. XXXVII(2).

56594, 57184, 57374.

arrangement for stacking sheets of paper in teleprinters, *see* TELEGRAPHS, ETC.

Tyre bead reinforcements, *see* WHEELS, ETC.

Tyres, apparatus for making, *see* WHEELS, ETC.

Tyres moulding, *see* MOULDING, ETC.

Tyres, pneumatic, *see* WHEELS, ETC.

Tyres, tubeless, *see* WHEELS, ETC.

U

UMBRELLAS AND WALKING STICKS. LXVI(10).

57137, 58283.

UNITING METAL TO AND SEALING METAL INTO VITREOUS MATERIALS. LXII(3).

58558.

Unsaturated hydrocarbons, *see* CARBON COMPOUNDS, ETC.

Upholstered structures, *see* FURNITURE.

Upholstery, *see* FURNITURE.

Uprooting plants, out of soil devices for, *see* AGRICULTURAL, ETC.

Urea, *see* CARBON COMPOUNDS, ETC.

Urokinase, *see* DISINFECTING, ETC.

V

Vaccins, *see* DISINFECTING, ETC.

Vacuum brake apparatus, *see* BRAKES, ETC.

Vacuum jacketed flask, *see* COOLING, ETC.

VACUUM CONFINED GAS AND VAPOUR APPARATUS FOR ELECTRIC DISCHARGES LXIII(4).

cathode ray tubes, *see* Solid, etc., (Cathode, etc.)

chokes, *see* CAPACITANCES, ETC.

cold cathode discharge tube, *see* Solid, etc., (Types unclassified).

cold cathode tubes, *see* Solid, etc. (Types unclassified).

construction of containers, *see* Solid etc., Containers, etc., Construction, etc.

discharge lamp fittings, *see* Solid, etc. Lamps.

electric discharge lamps, *see* Solid, etc. Lamps, (Electrodes, etc.).

fluorescent tube holders, *see* Solid, etc. (Lamps-Unclassified, etc.)

ionisation chambers, *see* Solid, etc. (Types unclassified.)

Liquid electrode apparatus. 59186.

magnetrons, *see* Solid, etc. (Magnetic, etc.)

Miscellaneous. No case.

mounting of electrodes in, *see* Solid, etc. (Lamps-Electrodes, etc.)

VACUUM CONFINED GAS, ETC.—contd.

phosphor compositions for discharge lamps, *see* LUMINESCENT, ETC.s
Solid electrode, apparatus—

Cathode ray tubes. 56630, 58040, 59044.

Containers and envelopes—

joining and sealing conductors, *see* UNITING METAL, ETC.

Constructions involving use of particular materials. 58963.

Other unclassified details. 58212.

Cooling (including temperature regulation). No case.

Electrode materials—

Cathode materials. No case.

Materials other than cathode. No case.

Fillings and gettering (including regulating of vacuum)—

Compositions containing gases and vapours other than metallic. No case.

Fillings containing metals and metal compounds. No case.

Gettering and regulating gaseous pressure. No case.

Lamps—

Electrodes, arrangement, construction and mounting. 56564.

Shield, sheaths and other accessory components (condensers, resistances, etc.), mounted within discharge lamp. 59209.

Unclassified details—

Caps and terminals. 57404.

Caps connecting to lamp bulbs, means for. 56630.

Electric discharge lamp fittings. 57785.

Holders. 58171.

Lead-in-wires, form of. 58212.

Screws or jackets. 59213.

luminiscent materials for discharge lamps, *see* LUMINESCENT, ETC.

starting and operating lamps, supply systems for. *see* ELECTRIC SUPPLY, ETC.

Magnetic devices for controlling or influencing discharges other than in cathode ray tubes) and for adjustment electrodes. 56229, 57936, 59044.

Photo electric cells. No case.

Rontgen ray tubes. 56630.

Thermionic valves—

Accessory components and unclassified details. No case.

Caps and terminals. 56630.

Electrodes, arrangement, construction and mounting. 56438.

Screens. No case.

Valves with four or more electrodes. No case.

Type unclassified—

Cold cathode tubes. 56528, 56673.

Electric discharge devices for detecting gases, vapours or smokes. 59078.

Electroluminescent devices. 57842, 57943, 58217.

Ionisation chambers. 57555, 57711, 57799, 57800.

VACUUM CONFINED GAS, ETC.—contd.

SOLID-ELECTRODE, APPARATUS—contd.

Type unclassified—contd.

Image intensifiers to reproduce images formed by radiation pulses. 56820.

Solid stage image. 59080.

Ultra-high frequency amplifier tube with wave guiding structure. 58918, 58919.

starting and operating lamps supply system for, *see* ELECTRIC SUPPLY, ETC.

Valve amplifying circuit, electric, *see* WIRELESS, ETC.

VALVES AND COCKS (OTHER THAN ENGINE AND LIKE VALVE ACTUATING ARRANGEMENTS) AND LIKE APPARATUS FOR REGULATING FLOW OF FLUIDS. XXXIX(3).

Ball and float valves. 56509.

diaphragm valve, manually actuated, *see* Manually, etc.

Fluid actuated valves (other than ball and float, type and waste-preventing). 56560, 57285, 58293, 58641, 59086, 59100.

fluid flow controlling other than by valves, *see* Regulating, etc.

Manually and mechanically actuated valves. 56448, 56504, 56509, 56639, 57102, 57310, 57692, 57949, 58210, 58330, 58630, 58957.

Miscellaneous—

Liquid feeding valves. 59227.

piston valve actuated mechanically, *see* Manually, etc.

Regulating volume of flow or pressure of fluids other than by valves. 58457, 59101.

sluice valves including gate valves and like valves, *see* Manually, etc.

Tyre and like inflating and deflating valves. 57558.

Valves actuated in part by fluid and in part by mechanical means. No case.

valves controlling supply of pressure fluid, *see* Fluid, etc.

valves for aerosol containers, *see* SPRAY PRODUCERS.

Vat dyeing, *see* DYEING, ETC.

Vehicle, brake for, *see* BRAKES, ETC.

Vehicle lamps, *see* LAMPS, ETC.

Ventilating apparatus, *see* VENTILATION.

VENTILATION. XXVI(4).

air conditioning unit for building, *see* Method, etc. (Plant, etc.)

air distribution apparatus, *see* Method, etc. (Plant, etc.)

Fans, punkah and like. No case.

Methods of and arrangement and adaptation of means for ventilation—

Air treating and conditioning (moistening, sterilising and drying, etc.) details in ventilating plant. 56561, 57148, 57336, 57337, 58500.

Plant combination for circulating air in buildings ships and vehicles. 57641, 57642, 57734.

Ventilators, ventilating shafts and valve and valve apparatus for ventilation. No case.

Vibratory conveyors, *see* LIFTING, ETC.

Vices, *see* HAND TOOLS.

Vinyl chloride, *see* CARBON COMPOUNDS, ETC.

Vinyl plastic compositions, *see* PLASTIC, ETC.

VENTILATION—contd.

Visual indicating signal apparatus, *see* SIGNALS, ETC.

Vitamins, *see* CARBON COMPOUNDS, ETC.

Voltage regulators for electric supply systems, *see* ELECTRIC SUPPLY, ETC.

Vulcanising India rubber, *see* INDIA RUBBER, ETC.

Vulcanizing pneumatic tyres, *see* INDIA RUBBER, ETC.

W

Walls and partitions, *see* BUILDINGS, ETC.

**WASHING AND CLEANING BUILDINGS AND DOMESTIC ARTICLES
OTHER THAN CLOTHES. XLIII(5).**

Vacuum and pressure cleaning and dusting apparatus, *see* AIR AND GASES, ETC.

WASHING GRANULAR, POWDERED AND LIKE MATERIALS. XXXIV(5).

Apparatus containing screening and sieving members (including jigs but not upward current classifiers). 57944, 57947.

Flotation and like selective processes and apparatus. 56627, 58478, 58917.
separating solids by washing and gravity selling, *see* Washing, etc.

sink and float and like differential density processes, *see* Washing, etc.

Upward current classifiers. No case.

Washing, settling and decanting apparatus (other than flotation and screening apparatus and upward current classifiers). 56351, 56702, 56989, 57945, 57946, 58150, 58782.

Washing or dressing coal by water, *see* WASHING, ETC.

Watch bracelets, *see* DRESS, ETC. also JEWELLERY.

**WATER AND OTHER LIQUID LEVELS, REGULATING, INDICATING AND
REGISTERING. XLI(9).**

(The indication and regulation of level of liquids used in measuring instruments and apparatus, other than those measuring only liquid levels are not indexed here, but under GAUGES ; PHILOSOPHICAL INSTRUMENTS ; and other headings for such instruments and apparatus.)

No case.

**WATER AND OTHER LIQUIDS, AND SEMI-LIQUIDS, RAISING, AND FORC-
ING, OTHER THAN BY PUMPS. XLVII(4).**

Bucket-elevators, scoop-wheels and like rotary apparatus. No case.

Chain pumps, and other adhesion apparatus. No case.

heat actuated pumps operating recurrent vapour generation and condensation cycle, *see* Pressure, etc.

hydraulic ram pumps, *see* Pressure, etc.

Miscellaneous. No case.

Pressure and vacuum apparatus. 57357, 57918, 58813.

Pycota and like reciprocating type of bucket apparatus. No case.

**WATER AND UNSPECIFIED LIQUIDS, PURIFYING AND SOFTENING.
II(4).**

(This heading includes also processes of hardening and importing like properties to water.)

degasifying liquids, *see* CHEMICAL PROCESSES, ETC.

Gaseous reagents, treatment with. 59058.

WATER AND UNSPECIFIED, ETC.—contd.

Heating, treatment by. No case.

ion exchange materials, *see* Liquids, etc.

ion exchange process and apparatus for, *see* Liquid, etc.

Liquid and solid reagents, treatment with (including use of zeolites and like reagents). 56930, 56965, 57110, 57325, 57580, 58058, 59022, 59058.

Miscellaneous. No case.

water purifying by filtration, *see* FILTERING, ETC.

Water and other liquids purifying, *see* WATER, ETC., PURIFYING, ETC.

Water closets, *see* CLOSETS, ETC.

Water cooling, *see* COOLING, ETC.

Water filtering, *see* FILTERING, ETC.

Water gas, *see* COKING, ETC.

Water heaters, electric, *see* HEATING BY ELECTRICITY.

Water proofing fibrous materials, *see* PROOFING, ETC.

Water proofing fibrous materials, composition for, *see* PROOFING, ETC.

Water taps, *see* VALVES, ETC.

Watt-hour-meters electric, *see* MEASURING & TESTING, ETC.

Wave guide, *see* WIRELESS, ETC.

WAXES, SHELLAC AND FATTY ACIDS FOR SOAP AND CANDLE MAKING. XL(3).

copal, *see* Shellac, etc.

Fatty acids (including only oleic and other acids for soap and candle-making). No case.

Shellac and resin and resinous compounds (other than synthetic). 58473, 58848.

synthetic resins, *see* CARBON COMPOUNDS, ETC.

Waxes. 58587.

Web guiding head for introducing fabrics into finishing machines, *see* FABRICS FINISHING, ETC.

WEBS AND SHEETS AND OTHER FLEXIBLE MATERIAL, FEEDING AND DELIVERING. XXXVII(3).

56374, 56503, 56610, 56973, 57029, 57335, 57347, 57354, 57359, 57686, 57871, 58287, 58526.

Weed destroying compositions, *see* DISINFECTING, ETC.

Weft doubling and twisting mechanism, *see* LOOMS.

WEIGHING APPARATUS. XLI(10).

56903, 57314, 57748, 58247, 58369.

Weight or gravity operated motors, *see* MOTORS (MISCELLANEOUS).

Welding, *see* METAL WORKING.

Welding devices electrode holders for, *see* METAL WORKING.

Well casing perforators, *see* METAL WORKING.

Well logging by electromagnetic neutron generating or detecting means, *see* MEASURING, ETC.

Wethery tea, *see* DRYING, ETC.

WHEELS AND TYRES FOR VEHICLES. LVI.

air compartments formed within tubeless tyres, *see* Air tubes, etc.

Air tubes and chambers for pneumatic and like tyres. 56204, 57187, 59240.

annular rim seals for tubeless tyres, *see* Air tubes, etc.

WHEELS AND TYRES, ETC.—contd.

- apparatus for making pneumatic tyres, *see* Building, etc.
- Building and repairing wheels and tyres. 56289, 56355, 56369, 57091, 57352, 57994, 58234, 58275, 58650, 59116, 59252.
- covers for pneumatic and other elastic tyres, *see* Jackets, etc.
- Disc and spoke wheels (other than spring wheels), general design of. 57758, 58370, 58904.
- drop center rims for mounting tubeless tyres, making, *see* METAL WORKING.
- elastic tyres, covers and jackets for, *see* Jackets, etc.
- Hubs for wheels. No case.
- Jackets and covers for pneumatic and other elastic tyres. 56787, 57709.
- leakage in tubes stopping, *see* Building.
- Metallic and non-metallic cores for tyres. 56976.
- method and apparatus for assembling tread with the body of tyre, *see* Building, etc.
- Miscellaneous. No case.
- Pneumatic and other elastic tyres construction of (other than air tubes and chambers, jackets and covers, metallic and non-metallic cores, tread-bands projections and surfaces). 56205, 56864, 58083, 58325, 58765.
- pneumatic tyres, covers and jackets for, *see* Jackets, etc.
- pneumatic tyres repair, *see* Building, etc.
- preventing cracking in tubes, *see* Building, etc.
- Rims and felloes for wheel tyres. 57502, 57558, 57714, 58896.
- sealing device for tubeless tyre composing annular rubber bands, *see* Air tubes, etc.
- spoke wheels, *see* Disc and spoke, etc.
- Spring wheels. No case.
- tools for removing tyre from wheels rims, *see* Buildings, etc.
- Tread bands, projections and surfaces of pneumatic and like tyres. 57704, 59238.
- Tyres, non-elastic. No case.
- tyres, tubeless, construction of, *see* Pneumatic, etc.
- wire reinforcement for tyre beads, *see* Miscellaneous.
- Wheels for agricultural implements, *see* WHEELS, ETC.
- Wick burners, *see* BURNERS, ETC.
- Winches and cranes, *see* LIFTING, ETC.
- Wind mills and wind motors, *see* TURBINES, ETC.
- Winding conductors on armatures of motors machines for, *see* DYNAMO-ELECTRIC, ETC.
- Winding strips of sheet material, *see* WEBS, ETC.
- Winding yarns and threads, *see* SPINNING, ETC.
- Window opening devices, *see* DOOR AND GATE, ETC.
- Windows, *see* DOORS, ETC.
- Wire drawing, *see* METAL WORKING.
- Wire card raising machines for textile and other fabrics. *see* LOOMS.

WIRELESS SIGNALLING AND CONTROLLING. LXII.

- Aerials and like radiating and receiving conductors. 57057, 57229, 57475.
- antennae, *see* Aerials, etc.
- arrangement for generating carrier waves for multichannel signalling, *see* Diplex, etc.

WIRELESS SIGNALLING, ETC.—contd.

- carrier transmission systems, on lines, *see* Wired-wireless, etc.
- demodulators for frequency modulated wave, *see* Secret, etc.
- Diplex, duplex and multiplex systems, utilising. 57402, 57562, 57652.
- directive antennae construction of. *see* Aerials, etc.
- Directive, propagating and receiving systems (including bearings or location determining). 57051, 57229, 57550, 57782, 58669, 58888.
- diversity reception systems, *see* Secret and, etc.
- Electric oscillations, high frequency, producing by means other than thermionic valves and other discharge tubes. 56760, 57836, 58739.
- electric pulse generating circuit employing crystal triodes, *see* Electric oscillations, etc.
- ferroelectric crystals, *see* Miscellaneous.
- filter, rejector and separator circuit for blocking or separating electric currents of particular frequencies or ranges, *see* TELEGRAPHS, ELECTRIC.
- frequency shift telegraph systems, *see* Secret, etc.
- generating pulsating currents other than by electric discharge tubes, *see* Electric, etc.
- high frequency valve amplifiers of unspecified application, *see* Thermionic, etc. (Receiving, etc.)
- knobs securing to shafts in electrical components for tuning units. *see* Wireless receiving, etc.
- Miscellaneous—
 - Circuits employing semiconductor circuits. 58360.
 - Ferro electric crystal. 56899.
 - Piezoelectric devices. 58655.
 - Radio controlled clocks. 57277.
 - Semiconductor devices. 56872.
 - Transistor amplifiers. 58448.
 - Wave guides. 57469.
- position finders, *see* Directive, etc.
- radio navigation systems, *see* Directive, etc.
- Receiving systems and apparatus (other than for directive, diplex, duplex, secret and selective systems). No case.
- Secret and selective systems requiring specially co-ordinated transmitter and receivers, and other systems not using simply amplitude modulation or interruption, utilising. 56450, 56738, 57067, 57131, 58417, 58489, 58669, 58888.
- semi-conducting devices, *see* Miscellaneous.
- systems not using simply amplitude modulation or interruption of carrier waves, *see* Secret, etc.
- telegraph transmission system, *see* Transmitting, etc.
- thermionic relay circuits, *see* Thermionic, etc. Relay, etc.
- Thermionic valve circuits for amplifying, generating, modulating, receiving, and relaying—
 - Amplifying audio frequency currents and television and copying telegraph signals. No case.
- Generating oscillatory and alternating currents (including high frequency transmitting amplifiers). 56450, 56600, 57728.
 - Modified for current and voltage supply thereto. No case.
 - Modulation and interruption of high frequency currents, for. No case.
 - Receiving high frequency signals. . 59161.
 - Relay circuits. 58439, 58655.

WIRELESS SIGNALLING, ETC.—contd.

THERMIONIC VALVE CIRCUITS, ETC.—contd.

Utilising discharge tubes of special type and negative resistance tubes in general. 56528, 56673, 57245.

transistor amplifiers, *see* Miscellaneous.

Transmitting systems including keying. 56232.

tuning arrangements for receivers, *see* Wireless receiving sets, etc.

wave guides, *see* Miscellaneous.

Wired-wireless systems. 57144.

Wireless receiving sets, construction and control of. 56273, 56570, 56574, 56922, 57556, 58374, 58471, 58699, 58858.

Withering or drying systems, *see* DRYING SYSTEMS, ETC.

Withering tea, *see* DRYING SYSTEMS, ETC.

WOOD CUTTING AND WORKING. XLIII(6).

56281, 56626, 56716, 57444, 58300.

bamboo matting treating with resinous materials, *see* PROOFING, ETC.

cutting concentric recesses in wood pieces, tools for, *see* METAL WORKING.

drilling and boring wood, *see* METAL WORKING.

Wood preservative composition, *see* PROOFING, ETC.

WRITING APPLIANCES, INK AND RECEPTACLES FOR WRITING MATERIALS. XLII(6).

56247, 56678, 56713, 56841, 57126, 57266, 57321, 57476, 58028, 58315, 58706, drawing pins, *see* NAILS, ETC.

Y

Yarns, textile, coating with plastic materials, *see* PROOFING, ETC.

Z

Zinc, recovery of from zinc-lead mixed oxides, *see* METAL EXTRACTING ETC.

PART III.

Special Proceedings (Patents), 1957.

This Part contains the list of special proceedings in continuation of corresponding lists of the consolidated volume of Invention 1912-1920, and the Annual Journals for 1921 to 1957.

A.—Void applications. The applications bearing the following numbers have not been accepted and are deemed to have been refused under Section 5(4) of the Indian Patents and Designs Act, 1911. The specifications in respect of these applications have not been printed and are not open to public inspection except those marked with the sign† which have been published under Section 78-A(3) :—

56198,	56203,	56223,	56224,	56231,	56235,	56254,	56256,	56258,
56266,	56267,	56274,	56278,	56280,	56283,	56284,	56319,	56320,
56321,	56341,	56343,	56344,	56345,	56359,	56360,	56361,	56362,
56383,	56396,	56399,	56400,	56405,	56428,	56442,	56443,	56444,
56460,	56479,	56481,	56482,	56489,	56495,	56499,	56500,	56513,
56518,	56525,	56531,	56551,	56556,	56557,	56567,	56568,	56569,
56572,	56577†,	56579,	56580,	56593,	56605,	56618,	56629,	56631,
56644,	56652,	56653,	56677,	56684,	56689,	56690,	56696,	56697,
56698,	56703,	56704,	56715,	56732,	56734,	56736†,	56756,	56761,
56762,	56763,	56766,	56767,	56773,	56780†,	56816,	56831,	56843,†

56857,	56860,	56862,	56863,	56874,	56884,	56892,	56911,	56934,
56936,	56955,	56957,	56984,	56985,	56988,	57000,	57006,	57011,
57021,	57031†,	57039,	57059†,	57066,	57073,	57093,	57103,	57105,
57116,	57123,	57134,	57139,	57155,	57160,	57161,	57162,	57165,
57172,	57173,	57220†,	57238,	57247,	57249,	57256,	57257,	57259†,
57265,	57281,	57283,	57287†,	57293,	57322,	57323,	57329,	57363,
57365,	57367,	57372,	57376,	57383,	57423,	57442,	57486†,	57488†,
57492,	57505,	57591,	57633,	57636,	57637,	57639†,	57647,	57666,
57705,	57713,	57746,	57751†,	57793,	57794,	57801,	57802,	57808,
57809,	57813,	57829,	57830,	57856,	57864,	57865,	57866,	57877,

57885,	57887,	57905,	57906,	57934,	57935,	57939,	57957,	57959,
57962,	57972,	57974,	57998,	58004,	58035,	58036,	58051,	58054,
58056,	58062,	58067,	58074,	58094,	58095,	58096,	58122,	58125†,
58127,	58128,	58136,	58145,	58147,	58156,	58157†,	58170,	58175,
58181,	58182,	58183,	58185,	58186,	58193,	58202,	58214,	58226,
58229,	58242,	58245,	58246,	58254,	58267,	58269,	58270,	58280,
58281,	58285†,	58301,	58302,	58303,	58304,	58319,	58322†,	58349,
58359,	58394,	58396,	58406,	58416,	58434,	58435,	58436,	58440,
58464,	58468,	58495,	58503,	58504,	58505,	58510,	58516,	58517,
58524,	58527,	58530,	58531,	58540,	58542,	58551,	58552,	58557,

58559,	58585,	58601,	58608†,	58610,	58643,	58649†,	58652,	58653,
58658,	58659,	58660,	58661,	58662,	58663,	58664,	58683,	58684,
58697,	58730,	58746,	58758,	58759,	58769,	58805,	58808†,	58818,
58835,	58844†,	58845,	58862,	58876,	58877,	58881,	58892,	58894,
58900†,	58906†,	58910,	58916,	58921,	58922,	58924,	58949,	58951†,
58960,	58966,	58969,	58971,	58973,	58979,	58984,	58993,	58994†,
59003,	59010,	59011,	59034,	59035,	59053,	59055,	59070,	59082,
59083,	59098,	59104,	59105,	59106,	59107,	59113,	59115,	59127,
59136†,	59149,	59150,	59155†,	59156,	59159,	59183,	59193,	59194,
59219,	59256,							

B.—Abandoned applications. The applications bearing the following numbers have been accepted and the specifications have been printed but patents have not been sealed thereon within the period prescribed in Section 10(2) of the Act—

56201,	56205,	56277,	56287,	56642,	56747,	56832,	56875,	57010,
57038,	57382,	57461,	57462,	57593,	57659,	57700,	57716,	57992,
58638,	58657.							

C.—List of Applications on which oppositions were filed.

(a) Opposition to the grant of Patents.

Application No.	Name of Applicant.	Result.
44306	N. D. Daroga, I. K. Panchal and G. B. Gadre.	Pending.
44964 with No. 44965.	Cognate N. D. Daroga, I. K. Panchal and G. B. Gadre.	Pending.
44966 with No. 44967.	Cognate N. D. Daroga, I. K. Panchal and G. B. Gadre.	Pending.
46501	N. D. Daroga, I. K. Panchal and G. B. Gadre.	Pending.
47338	Curt Barth	Pending.
47858	B. P. Mathias	Pending.
48314	American Home Products Corporation	Pending.
48770	Sudhir Lal Mukherjee and Albert David Ltd.	Opposition allowed in part. Patent will be sealed subject to the amendment of the specification.
48771	Sudhir Lal Mukherjee and Albert David Ltd.	Opposition allowed in part. Patent will be sealed subject to the amendment of the specification.
48943	C. F. Boehringer & Soehne G. m. b. H.	Pending.
49580	Sudhir Lal Mukherjee and Albert David Ltd.	Opposition has been allowed. Patent will not be sealed.
49581	Sudhir Lal Mukherjee and Albert David Ltd.	Opposition allowed in part. Patent will be sealed subject to the amendment of the specification.
51104	Firma Saladin & Co., Inc.	Pending.
51175	Sudhir Lal Mukherjee and Albert David Ltd.	Opposition allowed in part. Patent will be sealed subject of the amendment of the specification.
51573	M. S. Wadke	Pending.
51624	Alfred Rudolf Hug	{ 1st Opposition. Pending. 2nd Opposition. Pending.

Application No.	Name of Applicant.	Result.
52477	<div> <div>Mrs. G. K. Doulatram . . .</div> <div>and</div> <div>Mrs. D. K. Samtani . . .</div> </div>	<div> <div>1st Opposition. Pending.</div> <div>2nd Opposition. Pending.</div> </div>
53058	The Asiatic Oxygen and Acetylene Co. Ltd.	Pending.
53440	J. G. Talati	Pending.
53506	National Bobbin Company . . .	Pending.
53764	Chas. Pfizer and Co., Inc. . . .	Pending.
53863	Chas. Pfizer & Co., Inc.	Pending.
53922	K. L. Verma	Pending.
53959	J. R. Geigy A.-G.	Pending.
54109	The Chloride Electrical Storage Co. Ltd.	Pending.
54250	A. B. Svenska Skolfabrikerna . . .	Pending.
54283	Technicolour Glass Marble Manufacturing Company.	<div> <div>1st Opposition.</div> <div>2nd opposition.</div> <div>3rd Opposition.</div> </div>
54422	Bristol Laboratories Inc.	Pending.
54551 (Cognate with No. 56011).	Ciba Ltd.	Pending.
54983	Grundy (Teddington) Ltd., and S. W. Grundy.	Pending.
55015	F. L. Smidth & Co., A/S.	Pending.
55610	M. S. Wadke	Pending.
56611	Unilever Ltd.	Pending.†
56633	Olin Mathieson Chemical Corporation .	<div> <div>1st Opposition. Pending.</div> <div>2nd Opposition. Pending.</div> </div>
57078	Daiichi Seiyaku Co., Ltd.	Pending.
57101	Taymouth Industries Ltd.	Pending.
57117	C. F. Boehringer and Soehne G. m. b. H.	Pending.
57196	Schlumberger Well Surveying Corporation	<div> <div>Opposition</div> <div>Treated as withdrawn.</div> </div>
57655	Chas. Pfizer & Co. Inc.	Pending.
58086	The Gopal Glass Works No. 2 and C. Agarwal.	Pending.
58620	Bejoy Banerjee	Pending.
59350	Sudhir Lal Mukherjee and Albert David Ltd.	Pending.

Application No.	Name of Applicant.	Result.
59377	Godrej & Boyce Mfg. Co. Private Limited.	Pending.
60203	The Metal Box Company of India Limited.	{ 1st Opposition. Pending. 2nd Opposition. Pending.

(b) Opposition to the petition for extension of term of Patents under Section 15.

Application No.	Name of applicant.	Result.
22729	Bezwada Metal & Steel Industries Ltd.	Opposition allowed.
22410	K. L. Verma	Opposition pending.

(c) Opposition to the restoration of Patents under Section 16.

Application No.	Name of applicant.	Result.
27653	Nand Kishore Bahl	Pending.
27880	Nand Kishore Bahl	Pending.
28302	Nand Kishore Bahl	Pending.

(d) Opposition to the grant of Licence on application under Section 22.

Application No.	Name of Applicant.	Result.
43537	{ (i) American Flange & Mfg. Co. Inc. . . (ii) B. V. Leer }	Pending.

D—Amendment under the Act and the Rules.

(The date given is the date of Gazette of India in which the last notice appeared)

Patent or Application No.	Date.
50757	June 1, 1957.
51156	August 31, 1957.
51238	November 23, 1957.
51630	July 20, 1957.
52472	March 2, 1957.
52718	November 2, 1957.

Patent or Application No.	Date.
53078 . . . . .	. February 16, 1957.
53316 . . . . .	. July 20, 1957.
53672 . . . . .	. February 16, 1957.
53820 . . . . .	. March 30, 1957.
53848 . . . . .	. January 19, 1957.
53851 . . . . .	. September 14, 1957.
53957 . . . . .	. October 19, 1957.
54197 . . . . .	. November 16, 1957.
54269 . . . . .	. May 25, 1957.
54281 . . . . .	. April 13, 1957.
54318 . . . . .	. April 13, 1957.
54477 . . . . .	. July 27, 1957.
54522 . . . . .	. November 2, 1957.
54591 . . . . .	. June 1, 1957.
54732 . . . . .	. September 28, 1957.
54754 . . . . .	. June 29, 1957.
54794 . . . . .	. June 29, 1957.
54800 . . . . .	. July 6, 1957.
54857 . . . . .	. June 29, 1957.
54920 . . . . .	. July 13, 1957.
54977 . . . . .	. September 21, 1957.
54991 . . . . .	. July 27, 1957.
55061 . . . . .	. November 23, 1957.
55135 . . . . .	. December 14, 1957.
55253 . . . . .	. July 27, 1957.
55280 . . . . .	. December 14, 1957.
55422 . . . . .	. August 24, 1957.
55435 . . . . .	. July 6, 1957.
55487 . . . . .	. July 13, 1957.
55488 . . . . .	. July 13, 1957.
55499 . . . . .	. July 13, 1957.
55527 . . . . .	. November 30, 1957.

Patent or Application No.	Date.
55608	July 27, 1957.
55675	July 20, 1957.
55679	September 21, 1957.
55722	November 9, 1957.
55738	December 7, 1957.
55742	November 9, 1957.
55837	November 9, 1957.
55901	July 20, 1957.
56051	July 20, 1957.
56064	December 7, 1957.
56163	December 7, 1957.
56352	December 21, 1957.
56353	December 21, 1957.
56372	September 21, 1957.
56426	September 21, 1957.
56529	December 21, 1957.
56566	December 7, 1957.
56597	December 7, 1957.
56621	November 16, 1957.
56648	November 9, 1957.
56778	December 21, 1957.
56969	November 9, 1957.
57140	December 7, 1957.
57196	July 20, 1957.
57294	December 7, 1957.
57728	December 14, 1957.
58849	October 12, 1957.
59742	October 19, 1957.
60280	September 14, 1957.

E.—Restoration of Lapsed Patents.

Granted :—25205, 27131, 27761, 29422, 31919, 33649, 33651, 34683, 34684, 35209, 36573, 40773, 41784, 42324, 42819, 43922, 43986, 45779, 46664, 46775, 46853, 48810, 48864, 48917, 49599.

Pending :—27637, 27663, 27880, 28302, 42948, 42949, 46543, 47183, 48206, 49147.

F—Appeals to the Central Government against the decision of the Controller and the Deputy Controller.**Appeal under Section 9.**

Patent No.	Name of Applicant.	Result.
48770	J. R. Geigy, A.-G.	Appeal rejected by the Central Government and patents sealed on the applications.
48771		
49681		
51175		

G—Appeal to the High Court at Calcutta against the decision of the Controller under Section 23F.

Patent No.	Name of Applicant.	Result.
14245	Hiralal Banjara and Rajendra Prasad Varma.	Pending.
14245	Ditto	Pending.

H.—Extension of term of Patent under Section 15 of the Indian Patents and Designs Act.

Patent No.	Name of Applicant.	Result.
22149	Pirelli Limited	The Central Government has by an order dated 25th April 1957 granted a new patent for a term of 3 years from 2nd September 1956.
22410	Govardhan Das Khanna	Pending.
22729	Jeewanlal (1929) Ltd.	The Central Government has by an order dated 4th November 1957 rejected the petition for extension of the term of this patent.

I.—Application for Compensation under Section 16.

Patent No.	Name of Applicant.	Result.
38257	National Alloy & Metal Works Private Ltd.	Pending.

J.—Application for Licence under Section 22.

Patent No.	Name of Applicant.	Result.
48416	B. K. Shaw Mantle Works	Pending .
47165	{ Bhikhalal Amtalal Shah and Christopher Robin Shah }	Pending.
43537	Indian Die Casting Co.	Pending.
47165	Madhukar Sadashiv Wadke	Pending.
43678	{ Arlabs Private Limited	Pending.
43679		

K.—Application for Licence under Section 23CC.

Patent No.	Name of Applicant.	Result.
51304	Raptakos, Brett & Co. Private Ltd.	Pending.

L.—Correction of Clerical Errors under Section 62.

• 48436, 51931, 51932, 55902, 56560.

M.—Revocation under Section 26.

Patent No.	Name of Applicant.	Result.
48368	Hindustan Metal Industries.	Patent has been revoked by Allahabad High Court in Suit No. 2 of 1954 and Suit No. 3 of 1955 for injunction and damages has been dismissed with cost.

N.—Surrender of Patents under Section 24.

Patent No.	Name of Applicant.	Result.
53898	Chadolan Inc.	The offer to surrender treated as abandoned.
53899	Ditto.	Ditto.

O.—Alteration of dates.

Application No.	Date allowed.
(a) Ante-dated to—	
56573	October 4, 1955.
57124	April 27, 1955.
57125	April 27, 1955.
57126	September 10, 1955.
57484	May 19, 1955.
57522	October 11, 1955.
58355	June 16, 1955.
58404	November 11, 1955.
58405	November 18, 1955.
58770	April 13, 1955.
58771	April 13, 1955.

Application No.	Date allowed.
58795 . . . . .	. October 19, 1955.
58796 . . . . .	. June 13, 1955.
58826 . . . . .	. February 9, 1956.
58948 . . . . .	. May 23, 1955.
59025 . . . . .	. June 28, 1955.
59062 . . . . .	. December 3, 1956.
59241 . . . . .	. April 27, 1955.
59247 . . . . .	. February 29, 1956.
59248 . . . . .	. February 29, 1956.
59276 . . . . .	. January 3, 1956.
59444 . . . . .	. March 22, 1956.
59744 . . . . .	. June 1, 1956.
59745 . . . . .	. June 1, 1956.
59759 . . . . .	. April 3, 1956.
59956 . . . . .	. September 29, 1955.
59957 . . . . .	. September 29, 1955.
59958 . . . . .	. September 29, 1955.
59972 . . . . .	. December 29, 1955.
59982 . . . . .	. May 10, 1956.
59983 . . . . .	. July 24, 1956.
60110 . . . . .	. September 11, 1956.
60199 . . . . .	. November 18, 1955.
60216 . . . . .	. November 3, 1955.
60220 . . . . .	. April 24, 1956.
60249 . . . . .	. June 18, 1956.
60331 . . . . .	. August 14, 1955.
60365 . . . . .	. July 30, 1956.
60419 . . . . .	. December 14, 1955.
60451 . . . . .	. December 12, 1955.
60467 . . . . .	. May 11, 1957.
60674 . . . . .	. August 9, 1956.
60754 . . . . .	. January 16, 1956.
60787 . . . . .	. November 17, 1955.

Application No.	Date allowed.
-----------------	---------------

60881	November 17, 1955.
60882	November 17, 1955.
60883	November 17, 1955.
60884	November 17, 1955.
60894	November 17, 1955.
60895	November 17, 1955.
61110	September 11, 1956.
61227	October 29, 1955.
61315	April 25, 1956.
61316	April 25, 1956.
61317	April 25, 1956.
61318	April 25, 1956.
61464	April 7, 1956.
61480	May 2, 1956.
61697	December 17, 1956.
61899	March 27, 1956.
62129	May 28, 1956.
62152	May 16, 1956.

(b) Post-dated to—

53748	November 7, 1955.
54958	April 16, 1956.
55666	July 16, 1956.
56516	May 9, 1956.
56801	July 15, 1957.
57422	June 21, 1956.

(c) In the following cases the claim to priority dates has been abandoned or disallowed and the applications have been allowed to proceed as ordinary applications with the dates of their filing in India or with later dates.

Application No.	Date claimed.	Date allowed.
-----------------	---------------	---------------

54844	June 25, 1954	June 28, 1955.
55187	September 1, 1954	August 16, 1955.
55266	September 25, 1954	August 23, 1955.
55276	August 24, 1954	August 24, 1955.
55465	October 23, 1954	September 24, 1955.
55534	August 11, 1954	October 4, 1955.
55605	October 18, 1954	October 13, 1955.
55618	October 5, 1954	October 17, 1955.
55716	November 12, 1954	November 1, 1955.
55721	November 12, 1954	November 1, 1955.
55751	November 9, 1954	November 3, 1955.

Application No.	Date claimed.	Date allowed.
55771	November 25, 1954 . . .	November 7, 1955.
55821	December 23, 1954 . . .	November 15, 1955.
55872	November 29, 1954 . . .	November 19, 1955.
55935	December 1, 1954 . . .	November 28, 1955.
56295	January 22, 1955 . . .	January 13, 1956.
56424	February 10, 1955 . . .	January 31, 1956.
56492	February 23, 1955 . . .	February 7, 1956.
56502	February 19, 1955 . . .	February 8, 1956.
56693	March 4, 1955 . . .	March 2, 1956.
56700	August 4, 1955 . . .	December 1, 1955.
56702	March 8, 1955 . . .	March 2, 1956.
56776	March 13, 1955 . . .	March 12, 1956.
56789	September 29, 1955 . . .	September 20, 1955.
56833	August 5, 1955 . . .	March 16, 1956.
57064	April 15, 1955 . . .	April 16, 1956.
57549	June 8, 1955 . . .	June 7, 1956.
57552	June 7, 1956 . . .	June 7, 1957.
57601	June 13, 1956 . . .	June 12, 1956.
58078	August 5, 1955 . . .	August 6, 1956.
58179	August 3, 1956 . . .	December 7, 1956.
58219	April 20, 1956 . . .	April 18, 1956.
58227	August 10, 1956 . . .	August 22, 1956.
58728	October 24, 1955 . . .	October 24, 1956.
58789	November 1, 1955 . . .	October 31, 1956.
58843	November 12, 1955 . . .	November 9, 1956.
59223	January 12, 1956 . . .	December 27, 1956
59413	February 1, 1956 . . .	November 30, 1956
59553	February 23, 1956 . . .	February 4, 1957.
59554	February 23, 1956 . . .	February 4, 1957.

P.—Assignments, licences or other transactions affecting the interests of the original patentees have been registered in respect of the following patents. The numbers of each patent is followed by the name of the applicant for registration :—

-
- 23795 The Dover Engineering Works Limited.
 - 28542 Siemens Brothers & Co., Limited.
 - 30970 Siemens Brothers & Co., Limited.
 - 31887 } The Geigy Company Limited.
 - 32128 }
 - 32322 The Dover Engineering Works Limited.
 - 32486 The President of India.
 - 33011 Algemeene Kunstvezel Maatschappij Naamlooze Venootschap.
 - 33110 }
 - 33172 } The Geigy Company Limited.
 - 33908 }
 - 34034 Algemeene Kunstvezel Maatschappij Naameooze Venootschap.
 - 34078 The Geigy Company Limited.
 - 34637 Siemens Brothers and Co. Limited.
 - 35699 Dorothy Frances Pickering.
 - 35934 The Geigy Company Limited.
 - 37903 Edgar Allen & Co. Limited.
 - 38103 The Geigy Company Limited.
 - 38978 Siemens Brothers & Co. Limited.
 - 39855 The Tata Iron and Steel Co. Ltd.
 - 40142 Karl Hack.
 - 40193 Essoldomatic Limited.
 - 40279 Crewkerne Textiles Limited.
 - 40408 S. Smith & Sons (England) Limited.
 - 40974 Fabriques De Produits Chimiques De Thann Et De Mulhouse.
 - 41063 T. Ramakrishna.
 - 42514 Hoob Lal.
 - 42695 Dorothy Frances Pickering.
 - 42819 Maria Luisa Deburgh.
 - 43154 International Basic Economy Corporation of India.
 - 43164 }
 - 43292 } National Research Development Corporation of India.

- 43669 Jayanand Khira & Co. Private Ltd.
- 43850 }
 43879 }
 43880 } Fabriques De Produits Chimiques De Thann Et De Mulhouse
 43886 }
- 44905 Dorothy Frances Pickering.
- 45226 Shawinigan Chemicals Limited.
- 45666 National Research Development Corporation of India.
- 45723 }
 46054 } Abid Fidahussain Kagalwala, Anantrai Jadaviji Valia, Nashir Kaikhushruh.
 Kharas, Dhansukhlal Maniklal Desai and Hargovind Jadavji Valia.
- 46424 F. J. Stocks Corporation.
- 46513 Schlumberger Well Surveying Corporation.
- 46664 Fabriques De Produits Chimiques De Thann Et De Mulhouse.
- 47289 Fabriques De Produits Chimiques De Thann Et De Mulhouse.
- 47396 Schlumberger Well Surveying Corporation.
- 47446 National Research Development Corporation of India.
- 47451 Gebr. Stork & Co's Apparaten fabrick N. V.
- 47580 }
 47902 } National Research Development Corporation of India.
- 48088 }
 48089 } Texind Corporation Ltd.
 48172 }
- 48406 Union Carbide and Carbon Corporation.
- 48419 }
 48667 } National Research Development Corporation
- 48705 Union Carbide and Carbon Corporation.
- 48804 Isaac Jackson & Sons (Fasteners) Limited.
- 48954 Schlumberger Well Surveying Corporation.
- 49085 Ed. Geistlich Soehne Aktiengesellschaft.
- 49281 Jayanand Khira & Co. Private Limited.
- 49300 Smith Kline & French Laboratories.
- 49425 National Research Development Corporation of India.
- 49544 Schlumberger Well Surveying Corporation.
- 49589 Monsanto Chemicals Limited.
- 49905 }
 49906 } Dex (Prefabrications) Limited.

-
- 49972 Schlumberger Well Surveying Corporation.
49994 Unilever Limited.
50436 Smith Kline & French Laboratories.
50671 Her Majesty's Post Master General.
51035 }
51087 } Her Majesty's Post Master General.
51183 Vitreous Concrete Company Limited.
51188 Schlumberger Well Surveying Corporation.
51278 Baldwin—Lima-Hamilton Corporation.
51291 Shawinigan Chemicals Limited
51436 Schlumberger Well Surveying Corporation.
51590 Instart Diesel Components Limited.
51780 Unilever Limited.
51833 Herbert Kenmore.
51840 }
51841 } Agricultural Development Society.
51842 }
51934 }
51935 } Harsco Corporation.
51936 }
51958 National Research Development Corporation of India.
52111 National Research Development Corporation of India.
52126 Her Majesty's Post Master General.
52178 Harris Research Laboratories Inc.
52339 { 1st-W. A. Sheaffer Pen Company.
 { 2nd-The Parker Pen Company.
52516 Mathema Corporation Reg. Trust.
52530 H. Gerlach.
52556 Schlumberger Well Surveying Corporation.
52644 Union Carbide and Carbon Corporation.
52666 Permachem Corporation.
52694 Sheikh Wali Ullah.
52832 Dunlop Rubber Company Limited.
52856 Oryx Electrical Laboratories Limited.
53218 Dr. Hans Meyer-Doring and Dr. Werner Perkow.

- 53419 Abid Kagalwala, Anantrai Jadavji Valia, Dhansukhlal Maneklal Desai, Nashir Kaikhushruh Kharas and Hargovind Jadavji Valia.
- 53431 Her Majesty's Post Master General.
- 53682 Abid Kagalwala, Anantrai Jadavji Valia, Dhansukhlal Maneklal Desai, Nashir Kaikhushruh Kharas and Hargovind Jadavji Valia.
- 53882 Schlumberger Well Surveying Corporation.
- 53910 Imperial Chemical Industries (India) Private Limited.
- 53931 The Indian Iron and Steel Co. Ltd.
- 53985 Dex (Prefabrications) Limited.
- 54105 Trans Continental Development Company Trust Reg. Vaduz.
- 54134 Deutsche Gold-Und Silber-Scheideanstalt Vormals Roessler.
- 54305 Dunlop Rubber Company Limited.
- 54546 Chicopee Manufacturing Corporation.
- 54584 Leo Markoff-Moghadam.
- 54623 Rauma—Ropola Oy.
- 55190 } S. Smith & Sons (England) Limited.
- 55298 }
- 55590 Stillite Products Limited.
- 55692 General Mills, Inc.
- 56074 } The Vacuum Forming Company Private Limited.
- 56106 }
- 56130 Helena Rubinstein.
- 56503 John Douglas Robertson.
- 56578 Smith Kline & French Laboratories.
- 56646 Permachem Corporation.
- 57562 Her Majesty's Post Master General.
- 59135 Smith Kline & French Laboratories.

(b) Assignments, licences. etc. in respect of State Patents.

Hyderabad Patent No. 9/1356-F.

The Giegzy Company Limited.

PART IV.

Patents in force upto 31st December 1958.

16189,	20778,	22149,	22197,	22714,	23904,	24789,	24816,	24834,	24836,
24889,	24890,	24894,	24900,	24936,	24978,	24997,	25014,	25031,	25081,
25147,	25188,	25209,	25223,	25227,	25233,	25235,	25248,	25277,	25281,
25329,	25339,	25370,	25412,	25431,	25461,	25462,	25464,	25470,	25484,
25492,	25523,	25538,	25544,	25579,	25585,	25608,	25609,	25616,	25619,
25630,	25631,	25659,	25670,	25696,	25716,	25740,	25788,	25801,	25822,
25844,	25856,	25859,	25918,	25926,	25941,	25963,	25993,	26002,	26004,
26035,	26058,	26059,	26086,	26092,	26093,	26094,	26105,	26130,	26137,
26152,	26172,	26175,	26201,	26215,	26222,	26231,	26233,	26254,	26287,
26298,	26305,	26306,	26307,	26342,	26344,	26386,	26418,	26422,	26423,

26448,	26449,	26451,	26490,	26491,	26503,	26509,	26513,	26529,	26543,
26550,	26551,	26560,	26570,	26581,	26591,	26592,	26600,	26607,	26617,
26629,	26631,	26632,	26635,	26642,	26643,	26644,	26657,	26666,	26669,
26676,	26678,	26686,	26688,	26689,	26690,	26691,	26692,	26693,	26704,
26709,	26710,	26721,	26735,	26736,	26737,	26738,	26756,	26770,	26777,
26798,	26803,	26804,	26829,	26845,	26857,	26869,	26882,	26902,	26930,
26941,	26951,	26962,	26963,	26989,	27007,	27012,	27020,	27022,	27025,
27026,	27028,	27032,	27036,	27048,	27073,	27082,	27085,	27092,	27103,
27106,	27107,	27108,	27109,	27116,	27118,	27129,	27131,	27133,	27143,
27148,	27166,	27171,	27178,	27183,	27185,	27205,	27206,	27209,	27218,

27219,	27221,	27229,	27256,	27257,	27283,	27318,	27331,	27332,	27334,
27338,	27345,	27352,	27397,	27401,	27419,	27425,	27440,	27448,	27470,
27507,	27519,	27534,	27543,	27552,	27561,	27574,	27578,	27598,	27616,
27625,	27648,	27655,	27669,	27702,	27705,	27718,	27726,	27727,	27733,
27747,	27756,	27761,	27766,	27785,	27800,	27804,	27806,	27807,	27810,
27840,	27848,	27874,	27875,	27878,	27907,	27916,	27917,	27918,	27919,
27938,	27944,	27971,	28002,	28005,	28009,	28010,	28028,	28030,	28034,
28036,	28037,	28038,	28039,	28049,	28057,	28058,	28073,	28075,	28077,
28092,	28100,	28102,	28109,	28112,	28113,	28120,	28122,	28123,	28143,
28155,	28171,	28178,	28183,	28219,	28220,	28221,	28226,	28249,	28274,

28287,	28314,	28330,	28340,	28345,	28363,	28364,	28366,	28407,	28408,
28423,	28429,	28437,	28453,	28455,	28472,	28483,	28491,	28501,	28515,
28531,	28542,	28548,	28551,	28570,	28575,	28596,	28603,	28623,	28638,
28654,	28656,	28671,	28686,	28699,	28700,	28724,	28726,	28732,	28743,
28749,	28762,	28768,	28769,	28700,	28790,	28799,	28813,	28824,	28835,
28848,	28850,	28862,	28867,	28878,	28881,	28882,	28914,	28922,	28923,
28940,	28944,	28953,	28968,	28972,	28981,	28983,	28989,	29012,	29016,
29027,	29028,	29033,	29040,	29041,	29073,	29075,	29082,	29082,	29093,
29159,	29199,	29208,	29212,	29239,	29243,	29261,	29262,	29265,	29273,
29275,	29286,	29288,	29290,	29291,	29292,	29294,	29296,	29306,	29318,

29336,	29338,	29339,	29340,	29341,	29343,	29344,	29444,	29478,	29479,
29493,	29520,	29523,	29564,	29580,	29593,	29614,	29625,	29627,	29657,
29662,	29686,	29709,	29714,	29715,	29717,	29725,	29738,	29744,	29764,
29769,	29776,	29788,	29789,	29790,	29791,	29808,	29812,	29826,	29827,
29844,	29852,	29896,	29897,	29898,	29899,	29903,	29903,	29904,	29905,
29906,	29907,	29908,	29909,	29910,	29911,	29912,	29936,	29941,	29950,
29977,	29979,	29987,	29993,	30026,	30032,	30037,	30052,	30062,	30063,
30081,	30085,	30087,	30088,	30104,	30121,	30123,	30130,	30134,	30148,
30153,	30158,	30163,	30170,	30182,	30212,	30230,	30233,	30236,	30237,
30259,	30277,	30278,	30299,	30301,	30313,	30313,	30327,	30331,	30340,

30350,	30351,	30352,	30368,	30376,	30379,	30393,	30396,	30427,	30445,
30453,	30454,	30455,	30465,	30469,	30480,	30511,	30517,	30519,	30532,
30533,	30535,	30539,	30543,	30559,	30579,	30580,	30595,	30598,	30611,
30614,	30618,	30619,	30620,	30623,	30634,	30650,	30672,	30673,	30674,
30688,	30693,	30694,	30706,	30709,	30714,	30736,	30740,	30793,	30800
30824,	30832,	30833,	30834,	30839,	30846,	30865,	30867,	30873,	30874,
30877,	30904,	30919,	30930,	30932,	30941,	30947,	30949,	30959,	30970,
30971,	30984,	31006,	31009,	31019,	31035,	31052,	31065,	31072,	31076,
31077,	31082,	31083,	31085,	31096,	31097,	31098,	31105,	31107,	31119,
31122,	31131,	31154,	31168,	31191,	31192,	31193,	31195,	31196,	31197,

31204,	31213,	31221,	31231,	31232,	31239,	31247,	31272,	31287,	31297,
31302,	31303,	31325,	31328,	31330,	31344,	31359,	31360,	31363,	31373,
31374,	31383,	31394,	31405,	31415,	31416,	31417,	31440,	31441,	31446,
31484,	31485,	31505,	31506,	31507,	31508,	31517,	31518,	31526,	31528,
31529,	31530,	31536,	31537,	31538,	31542,	31558,	31559,	31577,	31578,
31599,	31606,	31617,	31625,	31631,	31653,	31654,	31655,	31656,	31657,
31658,	31659,	31660,	31671,	31672,	31693,	31694,	31706,	31707,	31708,
31722,	31726,	31748,	31753,	31759,	31760,	31761,	31791,	31801,	31810,
31815,	31825,	31827,	31830,	31850,	31865,	31866,	31876,	31882,	31886,
31887,	31888,	31890,	31894,	31903,	31906,	31933,	31939,	31956,	31958,

31967,	31968,	31974,	31986,	31998,	32001,	32004,	32008,	32011,	32017,
32020,	32022,	32024,	32037,	32038,	32041,	32043,	32044,	32052,	32056,
32057,	32073,	32076,	32079,	32087,	32095,	32098,	32100,	32105,	32116
32119,	32120,	32121,	32123,	32124,	32128,	32133,	32135,	32147,	32149,
32151,	32165,	32168,	32169,	32187,	32188,	32196,	32208,	32210,	32211,
32215,	32217,	32219,	32224,	32230,	32238,	32248,	32276,	32279,	32293,
32302,	32322,	32324,	32342,	32356,	32363,	32364,	32379,	32380,	32381,
32382,	32383,	32386,	32390,	32411,	32412,	32427,	32428,	32429,	32430,
32432,	32441,	32442,	32443,	32444,	32445,	32452,	32456,	32458,	32459,
32466,	32468,	32472,	32482,	32483,	32489,	32489,	32505,	32515,	32536,

32538,	32543,	32545,	32579,	32586,	32605,	32606,	32607,	32618,	32621,
32625,	32627,	32634,	32635,	32639,	32640,	32641,	32643,	32648,	32653,
32659,	32667,	32679,	32683,	32684,	32700,	32715,	32724,	32728,	32734,
32735,	32736,	32739,	32748,	32749,	32751,	32754,	32755,	32756,	32766,
32770,	32773,	32790,	32791,	32804,	32807,	32821,	32838,	32839,	32840,
32841,	32842,	32856,	32867,	32868,	32869,	32870,	32877,	32890,	32891,
32892,	32896,	32903,	32908,	32914,	32918,	32932,	32933,	32942,	32943,
32944,	32945,	32950,	32952,	32953,	32954,	32957,	32962,	32965,	32976,
32997,	33008,	33011,	33012,	33013,	33014,	33022,	33025,	33035,	33039,
33045,	33048,	33053,	33067,	33078,	33082,	33084,	33089,	33092,	33094,

33106,	33110,	33131,	33135,	33140,	33168,	33172,	33197,	33212,	33214,
33221,	33222,	33234,	33253,	33264,	33275,	33276,	33279,	33281,	33299,
33314,	33319,	33320,	33321,	33325,	33333,	33334,	33340,	33344,	33358,
33380,	33386,	33424,	33425,	33426,	33427,	33442,	33443,	33454,	33458,
33466,	33467,	33479,	33481,	33496,	33516,	33529,	33531,	33533,	33539,
33544,	33547,	33552,	33555,	33557,	33566,	33569,	33570,	33572,	33575,
33581,	33590,	33592,	33593,	33595,	33611,	33619,	33625,	33628,	33629,
33642,	33645,	33646,	33649,	33650,	33651,	33654,	33655,	33656,	33663,
33665,	33670,	33688,	33694,	33696,	33699,	33702,	33717,	33722,	33726,
33731,	33741,	33770,	33778,	33783,	33801,	33808,	33812,	33818,	33824,

33832,	33835,	33837,	33843,	33851,	33857,	33870,	33898,	33907,	33910,
33911,	33912,	33914,	33923,	33935,	33941,	33942,	33945,	33947,	33954,
33959,	33962,	33964,	33975,	33978,	33979,	33991,	33994,	33995,	34000,
34007,	34010,	34012,	34013,	34023,	34025,	34027,	34030,	34034,	34036,
34038,	34041,	34047,	34049,	34057,	34078,	34081,	34090,	34091,	34093,
34094,	34099,	34100,	34102,	34103,	34104,	34123,	34128,	34129,	34130,
34141,	34146,	34153,	34156,	34161,	34167,	34169,	34179,	34184,	34188,
34190,	34192,	34196,	34208,	34209,	34234,	34240,	34272,	34275,	34279,
34283,	34285,	34295,	34297,	34307,	34309,	34311,	34314,	34329,	34330,
34332,	34333,	34336,	34353,	34355,	34363,	34368,	33370,	34372,	34373,

34378,	34383,	34404,	34406,	34413,	34418,	34422,	34423,	34424,	34425,
34430,	34435,	34444,	34445,	34471,	34473,	34477,	34484,	34488,	34507,
34508,	34545,	34546,	34547,	34556,	34559,	34560,	34561,	34566,	34567,
34573,	34576,	34582,	34592,	34594,	34597,	34598,	34600,	34601,	34602,
34604,	34607,	34608,	34632,	34641,	34648,	34650,	34656,	34672,	34683,
34684,	34687,	34689,	34690,	34694,	34695,	34699,	34706,	34709,	34713,
34725,	34726,	34746,	34750,	34752,	34758,	34760,	34762,	34764,	34773,
34782,	34790,	34791,	34800,	34813,	34820,	34825,	34835,	34838,	34840,
34841,	34872,	34876,	34880,	34881,	34882,	34899,	34903,	34909,	34912,
34924,	34925,	34927,	34932,	34934,	34951,	34952,	34954,	34969,	34973,

34974,	34979,	34983,	34984,	34985,	34986,	34989,	34990,	34995,	35001,
35003,	35004,	35006,	35011,	35015,	35020,	35026,	35031,	35034,	35059,
35062,	35063,	35068,	35071,	35074,	35078,	35081,	35082,	35084,	35096,
35115,	35116,	35117,	35128,	35130,	35139,	35143,	35144,	35150,	35156,
35157,	35160,	35172,	35176,	35180,	35189,	35192,	35200,	35209,	35214,
35222,	35228,	35229,	35239,	35242,	35246,	35247,	35249,	35266,	35268,
35283,	35287,	35290,	35292,	35296,	35298,	35309,	35315,	35317,	35319,
35320,	35324,	35328,	35335,	35354,	35355,	35367,	35379,	35381,	35393,
35402,	35404,	35419,	35423,	35430,	35431,	35435,	35437,	35447,	35451,
35453,	35466,	35468,	35470,	35476,	35480,	35483,	35489,	35501,	35503,

35528,	35538,	35544,	35547,	35550,	35552,	35554,	35555,	35556,	35571,
35573,	35574,	35581,	35582,	35589,	35592,	35597,	25605,	35610,	35620,
35623,	35627,	35628,	35632,	35637,	35638,	35641,	35642,	35644,	35647,
35652,	35653,	35658,	35679,	35683,	35684,	35686,	35691,	35697,	35699,
35701,	35709,	35711,	35713,	35714,	35732,	35734,	35741,	35747,	35748,
35749,	35750,	35751,	35752,	35753,	35754,	35756,	35760,	35761,	35765,
35776,	35777,	35780,	35786,	35787,	35788,	35793,	35795,	35796,	35797,
35798,	35799,	35800,	35802,	35805,	35807,	35813,	35838,	35842,	35844,
35845,	35849,	35860,	35861,	35864,	35868,	35869,	35870,	35871,	35872,
35874,	35875,	35877,	35916,	35918,	35920,	35921,	35923,	35934,	35959,

35965,	35968,	35978,	35986,	35987,	36002,	36008,	36010,	36015,	36038,
36054,	36063,	36064,	36067,	36069,	36076,	36078,	36080,	36084,	36086,
36097,	36104,	36111,	36126,	36133,	36166,	36170,	36172,	36175,	36179,
36180,	36184,	36186,	36188,	36194,	36212,	36214,	36216,	36217,	36220,
36223,	36232,	36234,	36236,	36245,	36249,	36255,	36256,	36274,	36300,
36322,	36325,	36332,	36334,	36336,	36337,	36349,	36361,	36364,	36369,
36371,	36372,	36373,	36384,	36394,	36399,	36403,	36407,	36418,	36427,
36428,	36430,	36432,	36436,	36444,	36448,	36449,	36459,	36460,	36462,
36466,	36470,	36475,	36478,	36480,	36483,	36491,	36509,	36519,	36525,
36528,	36540,	36556,	36561,	36569,	36570,	36573,	36581,	36582,	36592,

36596,	36597,	36601,	36602,	36605,	36606,	36618,	36619,	36621,	36623,
36625,	36635,	36636,	36637,	36638,	36639,	36645,	36649,	36651,	36653,
36654,	36656,	36657,	36661,	36664,	36665,	36675,	36684,	36686,	36691,
36694,	36700,	36710,	36711,	36726,	36728,	36734,	36735,	36736,	36737,
36739,	36740,	36741,	36746,	36760,	36764,	36772,	36785,	36786,	36787,
36789,	36800,	36801,	36803,	36804,	36815,	36816,	36817,	36819,	36821,
36823,	36824,	36825,	36831,	36833,	36839,	36840,	36843,	36844,	36846,
36847,	36848,	36873,	36875,	36889,	36893,	36896,	36900,	36907,	36911,
36912,	36932,	36961,	36965,	36968,	36978,	36989,	36992,	36996,	37002,
37003,	37005,	37008,	37015,	37016,	37022,	37024,	37025,	37026,	37029,

37030,	37032,	37036,	37037,	37041,	37044,	37047,	37038,	37049,	37054,
37055,	37056,	37057,	37059,	37060,	37061,	37063,	37067,	37068,	37085,
37090,	37091,	37093,	37094,	37098,	37099,	37100,	37107,	37117,	37119,
37121,	37123,	37131,	37141,	37147,	37148,	37166,	37172,	37173,	37174,
37179,	37182,	37183,	37185,	37197,	37198,	37199,	37200,	37203,	37205,
37206,	37207,	37208,	37209,	37210,	37212,	37214,	37215,	37218,	37224,
37225,	37230,	37231,	37232,	37233,	37248,	37252,	37255,	37256,	37260,
37263,	37266,	37267,	37268,	37272,	37273,	37276,	37282,	37286,	37287,
37289,	37291,	37298,	37302,	37306,	37311,	37312,	37324,	37326,	37330,
37335,	37339,	37341,	37344,	37347,	37349,	37352,	37357,	37360,	37362,

37363,	37364,	37366,	37368,	37375,	37378,	37382,	37383,	37385,	37388,
37393,	37394,	37397,	37405,	37412,	37440,	37443,	37454,	37457,	37468,
37469,	37471,	37476,	37479,	37480,	37481,	37484,	37486,	37494,	37498,
37503,	37506,	37521,	37544,	37555,	37559,	37560,	37563,	37570,	37571,
37578,	37583,	37586,	37590,	37596,	37597,	37604,	37608,	37614,	37619,
37623,	37635,	37649,	37655,	37659,	37662,	37663,	37666,	37670,	37687,
37691,	37692,	37706,	37710,	37720,	37722,	37725,	37727,	37736,	37740,
37741,	37742,	37743,	37746,	37749,	37750,	37751,	37752,	37756,	37758,
37772,	37775,	37777,	37778,	37779,	37780,	37781,	37782,	37783,	37784,
37787,	37792,	37801,	37814,	37819,	37821,	37826,	37827,	37829,	37835,

37836,	37837,	37839,	37853,	37854,	37855,	37858,	37872,	37875,	37881,
37883,	37884,	37885,	37894,	37895,	37896,	37898,	37901,	37902,	37903,
37907,	37908,	37910,	37923,	37924,	37926,	37927,	37938,	37946,	37947,
37949,	37954,	37955,	37956,	37959,	37961,	37965,	37967,	37971,	37972,
37975,	37976,	37980,	37986,	37987,	37996,	37997,	37998,	38003,	38004,
38006,	38014,	38016,	38021,	38022,	38024,	38025,	38026,	38028,	38034,
38046,	38050,	38055,	38060,	38065,	38077,	38081,	38083,	38085,	38086,
38089,	38092,	38099,	28101,	38102,	38104,	38112,	38114,	38121,	38122,
38124,	38125,	38132,	38133,	38134,	38139,	38140,	38141,	38142,	38147,
38150,	38156,	38158,	38160,	38166,	38170,	38173,	38176,	38177,	38179,

38180,	38187,	38199,	38201,	38206,	38209,	38211,	38217,	38218,	38222,
38235,	38237,	38244,	38245,	38251,	38252,	38257,	38267,	38268,	38271,
38274,	38278,	38279,	38280,	38281,	38282,	38293,	38294,	39295,	38298,
38299,	38300,	38301,	38303,	38310,	38311,	38315,	38316,	38319,	38325,
38326,	38328,	38331,	38333,	38336,	38371,	38372,	38373,	38374,	38375,
38377,	38401,	39403,	38405,	38406,	38407,	38408,	38325,	38427,	38432,
38434,	38435,	38437,	38448,	38449,	38452,	38454,	38458,	38462,	38465,
38470,	38473,	38476,	38478,	38482,	38483,	38484,	38485,	38486,	38488,
38490,	38492,	38495,	38499,	38502,	38504,	38508,	38514,	38518,	38522,
38544,	38547,	38549,	38555,	38557,	38558,	38560,	38565,	38573,	38594,

38595,	38596,	38597,	38601,	38605,	38608,	38614,	38618,	38626,	38627,
38629,	38636,	38642,	38645,	38647,	38649,	38652,	38661,	38663,	38672,
38673,	38680,	38681,	38683,	38686,	38688,	38693,	38706,	38718,	38722,
38723,	38724,	38736,	38737,	38739,	38743,	38745,	38751,	38758,	38775,
38777,	38778,	38781,	38785,	38786,	38787,	38795,	38796,	38797,	38799,
38801,	38803,	38804,	38817,	38818,	38820,	38822,	38832,	38834,	38839,
38841,	38850,	38855,	38857,	38868,	38874,	38875,	38877,	38888,	38890,
38891,	38898,	38899,	38900,	38901,	38902,	38904,	38905,	38906,	38909,
38910,	38911,	38914,	38922,	38934,	38938,	38944,	38950,	38957,	38958,
38961,	38965,	38966,	38967,	38968,	38969,	38975,	38976,	38978,	38979,

38983,	38984,	38985,	38986,	38990,	39005,	39015,	39019,	39021,	39031,
39036,	39040,	39046,	39048,	39050,	39053,	39056,	39058,	39059,	39065,
39073,	39075,	39084,	39085,	39086,	39094,	39095,	39104,	39105,	39106,
39107,	39109,	39113,	39123,	39125,	39129,	39131,	39142,	39147,	39149,
39151,	39152,	39155,	39156,	39157,	39166,	39172,	39173,	39174,	39179,
39184,	39185,	39186,	39188,	39191,	39194,	39196,	39200,	39204,	39205,
39209,	39213,	39214,	39215,	39219,	39227,	39232,	39241,	39242,	39244,
39245,	39246,	39247,	39249,	39253,	39255,	39256,	39261,	39284,	38287,
39289,	39290,	39292,	39295,	39297,	39299,	39302,	39305,	39313,	39314,
39316,	39322,	39323,	39324,	39338,	39340,	39341,	39342,	39345,	39348,

39349,	39350,	39354,	39360,	39361,	39370,	39371,	39372,	39373,	39374,
39375,	39376,	39377,	39378,	39379,	39380,	39381,	39385,	39388,	39389,
39390,	39391,	39392,	39393,	39394,	39398,	39399,	39400,	39402,	39403,
39408,	39424,	39430,	39431,	39432,	39436,	39438,	39442,	39444,	39450,
39452,	39454,	39455,	39457,	39458,	39460,	39468,	39469,	39472,	39480,
39481,	39484,	39485,	39488,	39489,	39499,	39502,	39504,	39505,	39509,
39517,	39518,	39523,	39524,	39525,	39526,	39528,	39531,	39532,	39541,
39544,	39549,	39551,	39552,	39557,	39560,	39568,	39569,	39573,	39579,
39582,	39584,	39587,	39588,	39590,	39594,	39596,	39598,	39605,	39608,
39618,	39619,	39625,	39626,	39628,	39629,	39633,	39636,	39637,	39639,

39640,	39641,	39646,	39650,	39664,	39667,	39670,	39675,	39677,	39681,
39684,	39688,	39691,	39692,	39693,	39695,	39712,	39715,	39716,	39720,
39726,	39731,	39733,	39734,	39736,	39742,	39744,	39745,	39747,	39749,
39753,	39754,	39760,	39764,	39765,	39769,	39771,	39776,	39780,	39781,
39783,	39790,	39792,	39793,	39794,	39795,	39796,	39797,	39799,	39805,
39806,	39809,	39812,	39813,	39820,	39823,	39829,	39833,	39835,	39836,
39839,	39842,	39849,	39853,	39856,	39858,	39864,	39870,	39876,	39883,
39884,	39886,	39888,	39895,	39898,	39899,	39900,	39902,	39903,	39904,
39905,	39906,	39907,	39908,	39911,	39915,	39916,	39919,	39931,	39932,
39933,	39935,	39937,	39939,	39941,	39943,	39948,	39950,	39953,	39954,

39957,	39961,	39967,	39968,	39970,	39973,	39975,	39982,	39985,	39992,
39993,	39997,	39999,	40012,	40016,	40017,	40021,	40025,	40033,	40034,
40039,	40041,	40044,	40050,	40051,	40062,	40066,	40068,	40069,	40072,
40075,	40076,	40077,	40078,	40080,	40090,	40101,	40107,	40108,	40118,
40121,	40122,	40123,	40136,	40147,	40156,	40158,	40159,	40160,	40161,
40166,	40172,	40173,	40174,	40177,	40178,	40179,	40180,	40185,	40191,
40195,	40196,	40203,	40207,	40217,	40225,	40226,	40227,	40232,	40236,
40240,	40241,	40242,	40251,	40254,	40256,	40257,	40265,	40269,	40270,
40274,	40275,	40276,	40277,	40278,	40279,	40288,	40290,	40291,	40292,
40293,	40294,	40296,	40297,	40301,	40302,	40313,	40316,	40320,	40325,

40329,	40332,	40334,	40340,	40349,	40366,	40368,	40373,	40381,	40388,
40394,	40400,	40406,	40407,	40408,	40409,	40410,	40411,	40419,	40420,
40421,	40422,	40423,	40425,	40426,	40427,	40428,	40429,	40431,	40434,
40436,	40440,	40441,	40443,	40444,	40449,	40450,	40453,	40456,	40473,
40483,	40485,	40487,	40489,	40495,	40502,	40506,	40511,	40517,	40522,
40523,	40524,	40525,	40526,	40528,	40531,	40539,	40546,	40548,	40549,
40551,	40555,	40556,	40558,	40561,	40565,	40566,	40573,	40576,	40577,
40578,	40584,	40587,	40592,	40594,	40596,	40598,	40600,	40602,	40605,
40611,	40613,	40615,	40617,	40618,	40619,	40620,	40627,	40635,	40636,
40638,	40641,	40643,	40650,	40651,	40653,	40668,	40669,	40679,	40682,

40683,	40686,	40691,	40695,	40696,	40697,	40698,	40699,	40705,	40706,
40709,	40710,	40711,	40712,	40713,	40716,	40717,	40718,	40725,	40743,
40750,	40751,	40757,	40759,	40762,	40770,	40771,	40775,	40780,	40781,
40794,	40796,	40798,	40800,	40801,	40803,	40804,	40807,	40808,	40810,
40815,	40822,	40824,	40825,	40826,	40830,	40836,	40839,	40841,	40848,
40851,	40858,	40859,	40860,	40861,	40866,	40876,	40882,	40889,	40891,
40893,	40916,	40922,	40924,	40930,	40931,	40933,	40934,	40935,	40936,
40939,	40943,	40945,	40946,	40947,	40950,	40956,	40961,	40965,	40966,
40967,	40968,	40969,	40970,	40972,	40973,	40974,	40978,	40980,	40981,
40982,	40983,	40984,	40988,	40989,	40990,	40991,	40995,	40996,	40999,

41000,	41001,	41002,	41005,	41006,	41010,	41014,	41015,	41016,	41018,
41019,	41025,	41036,	41037,	41040,	41041,	41051,	41058,	41059,	41060,
41061,	41063,	41068,	41076,	41077,	41080,	41082,	41083,	41089,	41094,
41098,	41099,	41100,	41106,	41107,	41109,	41110,	41112,	41114,	41115,
41116,	41122,	41123,	41125,	41126,	41128,	41136,	41139,	41146,	41150,
41154,	41160,	41161,	41168,	41170,	41171,	41179,	41181,	41182,	41184,
41190,	41191,	41194,	41195,	41198,	41200,	41201,	41202,	41207,	41208,
41217,	41218,	41219,	41220,	41227,	41228,	41229,	41232,	41234,	41235,
41236,	41237,	41239,	41240,	41241,	41244,	41245,	41251,	41253,	41254,
41256,	41257,	41261,	41262,	41267,	41270,	41274,	41283,	41289,	41290,

41294,	41297,	41298,	41301,	41303,	41304,	41306,	41310,	41316,	41317,
41319,	41320,	41321,	41323,	41324,	41327,	41332,	41334,	41346,	41349,
41365,	41366,	41367,	41368,	41369,	41371,	41373,	41376,	41380,	41388,
41384,	41386,	41389,	41392,	41394,	41399,	41405,	41410,	41411,	41412,
41413,	41416,	41417,	41420,	41423,	41424,	41429,	41432,	41433,	41434,
41441,	41444,	41452,	41459,	41464,	41465,	41468,	41469,	41471,	41473,
41475,	41476,	41477,	41481,	41482,	41483,	41484,	41485,	41486,	41488,
41490,	41492,	41494,	41495,	41496,	41499,	41501,	41505,	41506,	41509,
41510,	41511,	41512,	41517,	41520,	41521,	41522,	41523,	41524,	41525,
41528,	41539,	41540,	41545,	41550,	41554,	41560,	41565,	41570,	41573,

41574,	41576,	41578,	41579,	41586,	41592,	41594,	41595,	41596,	41597,
41600,	41606,	41607,	41611,	41612,	41614,	41620,	41622,	41625,	41627,
41633,	41635,	41639,	41641,	41644,	41646,	41647,	41650,	41652,	41655,
41661,	41662,	41666,	41667,	41682,	41684,	41686,	41692,	41695,	41699,
41700,	41701,	41704,	41706,	41707,	41713,	41720,	41721,	41731,	41734,
41736,	41737,	41738,	41739,	41740,	41741,	41750,	41755,	41762,	41764,
41768,	41772,	41775,	41777,	41778,	41783,	41784,	41787,	41794,	41797,
§ 41798,	41799,	41803,	41806,	41809,	41810,	41812,	41813,	41817,	41820,
41822,	41824,	41829,	41830,	41831,	41832,	41834,	41835,	41836,	41833,
41838,	41847,	41852,	41853,	41855,	41858,	41859,	41861,	41863,	41864

41867,	41870,	41871,	41881,	41883,	41884,	41888,	41892,	41895,	41896,
41898,	41900,	41903,	41910,	41921,	41924,	41926,	41927,	41938,	41940,
41941,	41950,	41951,	41952,	42955,	41956,	41958,	41962,	41968,	41972,
41976,	41977,	41978,	41982,	41983,	41985,	41986,	41987,	41988,	41993,
41995,	42007,	42008,	42012,	42014,	42015,	42020,	42024,	42025,	42026,
42029,	42030,	42032,	42033,	42034,	42035,	42043,	42044,	42046,	42047,
42049,	42055,	42057,	42071,	42075,	42076,	42078,	42082,	42085,	42089,
42090,	42094,	42096,	42097,	42099,	42107,	42109,	42110,	42113,	42115,
42117,	42120,	42121,	42124,	42125,	42127,	42129,	42132,	42139,	42141,
42147,	42148,	42150,	42162,	42166,	42167,	42168,	42170,	42174,	42180,

42181,	42185,	42189,	42190,	42194,	42195,	42196,	42199,	42200,	42204,
42205,	42206,	42207,	42214,	42215,	42219,	42220,	42223,	42224,	42225,
42228,	42229,	42234,	42235,	42236,	42242,	42246,	42249,	42252,	42253,
42260,	42271,	42273,	42275,	42277,	42278,	42281,	42283,	42284,	42285,
42286,	42287,	42289,	42298,	42306,	42307,	42308,	42311,	42317,	42324,
42342,	42345,	42346,	42352,	42357,	42361,	42362,	42363,	42364,	42366,
42369,	42376,	42377,	42378,	42379,	42380,	42388,	42389,	42390,	42392,
42395,	42396,	42397,	42403,	42404,	42410,	42416,	42417,	42419,	42421,
42422,	42425,	42426,	42427,	42430,	42431,	42432,	42433,	42434,	42435,
42436,	42437,	42445,	42462,	§ 42463,	42464,	42465,	42467,	42469,	§ 42471,

42472,	42477,	42478,	42479,	42484,	42485,	42486,	42492,	42494,	42501,
42502,	42505,	42506,	42510,	42513,	42514,	42515,	42516,	42519,	42520,
42526,	42532,	42533,	42542,	42543,	42550,	42551,	42555,	42557,	42566,
42569,	42571,	42577,	42578,	42580,	42585,	42586,	42591,	42604,	42608,
42613,	42615,	42616,	42620,	42623,	42624,	42629,	42631,	42634,	42635,
42636,	42637,	42638,	42642,	42643,	42644,	42645,	42647,	42649,	42650,
42653,	42661,	42673,	42675,	42680,	42684,	42685,	42695,	42696,	42698,
42700,	42722,	42723,	42724,	42729,	42737,	42740,	42741,	42742,	42745,
42746,	42747,	42752,	42756,	42757,	42758,	42767,	42774,	42775,	42776,
42778,	42779,	42780,	42781,	42782,	42783,	42785,	42790,	42793,	42798,

42800,	42802,	42805,	42811,	42812,	42817,	42818,	42819,	42821,	42822,
42825,	42828,	42830,	42831,	42832,	42833,	42841,	42847,	42849,	42855,
42860,	42862,	42863,	42866,	42869,	42870,	42871,	42872,	42874,	42876,
42881,	42887,	42888,	42891,	42892,	42893,	42894,	42896,	42897,	42898,
42901,	42902,	42904,	42905,	42906,	42908,	42910,	42915,	42916,	42919,
42920,	42921,	42923,	42924,	42925,	42934,	42935,	42936,	42940,	42942,
42945,	42946,	42947,	42948,	42949,	42955,	42957,	42958,	42963,	42968,
42971,	42973,	42976,	42980,	42983,	42986,	42988,	42994,	42995,	42998,
42999,	43003,	43009,	43014,	43016,	43032,	43023,	43025,	43032,	43034,
43039,	43040,	43043,	43045,	43050,	43053,	43054,	43056,	43057,	43059,

43064,	43066,	43067,	43068,	43081,	43082,	43083,	43086,	43087,	43092,
43093,	43094,	43095,	43100,	43101,	43102,	43103,	43107,	43111,	43113,
43114,	43118,	43119,	43122,	43123,	43124,	43126,	43127,	43128,	43129,
43130,	43135,	43136,	43139,	43144,	43148,	43152,	43153,	43154,	43155,
43158,	43160,	43162,	43166,	43167,	43169,	43170,	43172,	43173,	43178,
43181,	43183,	43188,	43191,	43198,	43199,	43201,	43202,	43205,	43207,
43210,	43216,	43218,	43224,	43226,	43227,	43234,	43235,	43236,	43239,
43241,	43243,	43244,	43246,	43263,	43267,	43268,	43274,	43277,	43278,
43279,	43281,	43283,	43286,	43296,	43299,	43301,	43308,	43309,	43310,
43314,	43315,	43318,	43319,	43323,	43324,	43330,	43333,	43334,	43336,

43337,	43340,	43343,	43344,	43349,	43350,	43353,	43354,	43357,	43362,
43366,	43367,	43370,	43371,	43372,	43373,	43374,	43379,	43380,	43382,
43384,	43385,	43387,	43389,	43392,	43400,	43403,	43404,	43405,	43407,
43408,	43411,	43412,	43414,	43415,	43416,	43421,	43423,	43424,	43426,
43427,	43431,	43432,	43433,	43434,	43436,	43439,	43441,	43444,	43446,
43448,	43449,	43451,	43452,	43454,	43455,	43457,	43460,	43461,	43462,
43464,	43465,	43466,	43479,	43480,	43482,	43483,	43484,	43487,	43490,
43494,	43501,	43503,	43506,	43507,	43511,	43515,	43516,	43519,	43520,
43521,	43524,	43525,	43526,	43528,	43529,	43536,	43537,	43538,	43544,
43545,	43546,	43548,	43550,	43553,	43555,	43558,	43559,	43561,	43563,
43567,	43568,	43569,	43574,	43577,	43580,	43582,	43583,	43585,	43590,
43592,	43595,	43602,	43603,	43604,	43605,	43606,	43609,	43610,	43611,
43613,	43617,	43622,	43623,	43625,	43626,	43627,	43628,	43629,	43631,
43632,	43634,	43635,	43640,	43647,	43649,	43650,	43656,	43657,	43659,
43660,	43662,	43663,	43664,	43665,	43675,	43676,	43677,	43678,	43679,
43680,	43681,	43682,	43683,	43684,	43693,	43694,	43696,	43697,	43698,
43701,	43703,	43704,	43708,	43709,	43710,	43711,	43712,	43720,	43721,
43722,	43724,	43726,	43727,	43734,	43735,	43737,	43741,	43742,	43743,
43745,	43749,	43752,	43753,	43755,	43756,	43757,	43758,	43764,	43765,
43766,	43767,	43771,	43773,	43775,	43780,	43783,	43785,	43789,	43790,
43791,	43792,	43796,	43797,	43804,	43807,	43812,	43813,	43814,	43816,
43817,	43818,	43819,	43822,	43823,	43824,	43826,	43828,	43830,	43836,
43837,	43838,	43843,	43848,	43850,	43853,	43855,	43856,	43859,	43863,
43867,	43868,	43869,	43870,	43874,	43876,	43879,	43880,	43882,	43884,
43885,	43886,	43891,	43892,	43895,	43899,	43914,	43915,	43916,	43919,
43922,	43925,	43927,	43935,	43939,	43942,	23943,	43944,	43945,	43946,
43953,	43950,	43964,	43965,	43966,	43972,	43973,	43979,	43984,	43987,
43992,	43993,	43997,	43998,	44001,	44009,	44013,	44015,	44017,	44030,
44031,	44032,	44040,	44041,	44046,	44047,	44050,	44055,	44055,	44059,
44060,	44062,	44064,	44066,	44069,	44072,	44074,	44075,	44079,	44080,
44081,	44088,	44089,	44095,	44097,	44098,	44100,	44101,	44105,	44107,
44109,	44119,	44123,	44133,	44134,	44135,	44136,	44137,	44138,	44139,
44140,	44145,	44146,	44148,	44149,	44150,	44151,	44159,	44163,	44165,
44169,	44173,	44174,	44176,	44181,	44182,	44188,	44189,	44190,	44191,
44192,	44195,	44196,	44197,	44198,	44200,	44203,	44204,	44206,	44211,
44212,	44213,	44214,	44215,	44216,	44217,	44218,	44219,	44220,	44221,
44222,	44224,	44225,	44228,	44229,	44232,	44233,	44234,	44235,	44237,
44244,	44245,	44251,	44255,	44256,	44258,	44259,	44263,	44264,	44272,
44274,	44279,	44282,	44283,	44285,	44289,	44292,	44296,	44297,	44300,
44308,	44309,	44310,	44312,	44314,	44315,	44322,	44323,	44327,	44329,
44337,	44338,	44339,	44340,	44341,	44345,	44348,	44349,	44356,	44358,
44361,	44362,	44363,	44364,	44365,	44366,	44367,	44373,	44374,	44378,
44381,	44382,	44390,	44394,	44395,	44400,	44401,	44403,	44406,	44409,
44410,	44415,	44416,	44417,	44418,	44421,	44423,	44424,	44434,	44435,
44437,	44439,	44440,	44441,	44442,	44443,	44444,	44445,	44446,	44447,
44448,	44450,	44454,	44455,	44456,	44465,	44473,	44474,	44477,	44490,
44491,	44494,	44497,	44500,	44506,	44507,	44510,	44513,	44515,	44518,
44521,	44522,	44530,	44531,	44532,	44533,	44534,	44538,	44540,	44542,
44543,	44546,	44548,	44549,	44550,	44551,	44554,	44555,	44556,	44558,
44559,	44563,	44565,	44566,	44577,	44579,	44580,	44581,	44582,	44583,
44586,	44588,	44589,	44591,	44594,	44595,	44598,	44599,	44604,	44605,
44606,	44607,	44608,	44609,	44610,	44612,	44614,	44615,	44616,	44617,
44618,	44619,	44620,	44622,	44624,	44626,	44629,	44630,	44633,	44639,
44640,	44641,	44642,	44644,	44645,	44649,	44650,	44652,	44655,	44658,
44660,	44661,	44663,	44664,	44665,	44666,	44667,	44668,	44669,	44670,
44673,	44674,	44675,	44676,	44677,	44678,	44679,	44680,	44681,	44686,
44687,	44688,	44689,	44690,	44692,	44694,	44695,	44696,	44697,	44698,
44704,	44706,	44707,	44709,	44713,	44716,	44717,	44719,	44723,	44724,
44726,	44728,	44731,	44732,	44733,	44734,	44735,	44736,	44737,	44739,
44742,	44743,	44744,	44745,	44749,	44750,	44751,	44754,	44761,	44762,

44763,	44764,	44766,	44768,	44774,	44775,	44776,	44777,	44783,	44786,
44787,	44788,	44789,	44792,	44793,	44799,	44800,	44801,	44805,	44806,
44807,	44808,	44810,	44811,	44813,	44814,	44816,	44818,	44821,	44826,
44827,	44828,	44829,	44830,	44833,	44834,	44835,	44837,	44838,	44839,
44840,	44841,	44842,	44844,	44848,	44850,	44853,	44854,	44855,	44864,
44868,	44871,	44872,	44876,	44877,	44878,	44882,	44883,	44884,	44890,
44894,	44895,	44896,	44897,	44898,	44899,	44902,	44903,	44905,	44906,
44907,	44909,	44910,	44911,	44912,	44914,	44915,	44916,	44922,	44926,
44928,	44932,	44933,	44934,	44937,	44938,	44941,	44944,	44947,	44948,
44949,	44950,	44951,	44952,	44953,	44954,	44955,	44956,	44957,	44958,

44959,	44960,	44961,	44962,	44963,	44968,	44971,	44974,	44976,	44977,
44978,	44983,	44988,	44989,	44990,	44992,	44995,	44996,	44997,	45001,
45002,	45003,	45004,	45010,	45012,	45014,	45015,	45016,	45020,	45026,
45032,	45033,	45034,	45035,	45036,	45040,	45041,	45042,	45044,	45045,
45046,	45048,	45053,	45054,	45055,	45058,	45059,	45063,	45070,	45076,
45077,	45078,	45079,	45082,	45083,	45085,	45089,	45090,	45092,	45093,
45095,	45099,	45100,	45101,	45102,	45103,	45106,	45108,	45113,	45116,
45119,	45121,	45122,	45123,	45128,	45129,	45130,	45134,	45138,	45141,
45147,	45148,	45153,	45154,	45156,	45161,	45162,	45168,	45169,	45170,
45171,	45174,	45181,	45183,	45187,	45188,	45190,	45195,	45196,	45197,

45202,	45203,	45204,	45206,	45207,	45208,	45209,	45211,	45212,	45214,
45218,	45224,	45225,	45226,	45228,	45230,	45231,	45233,	45237,	45238,
45243,	45246,	45248,	45251,	45254,	45256,	45258,	45262,	45263,	45264,
45269,	45270,	45271,	45272,	45273,	45277,	45281,	45282,	45283,	45289,
45293,	45297,	45300,	45301,	45303,	45304,	45306,	45308,	45309,	45310,
45318,	45319,	45323,	45324,	45325,	45327,	45329,	45333,	45334,	45337,
45339,	45342,	45346,	45347,	45348,	45349,	45350,	45351,	45354,	45355,
45356,	45357,	45361,	45362,	45364,	45367,	45368,	45369,	45374,	45376,
45377,	45379,	45384,	45385,	45386,	45387,	45394,	45395,	45403,	45405,
45406,	45407,	45408,	45409,	45411,	45417,	45418,	45421,	45423,	45424,

45425,	45426,	45428,	45429,	45430,	45432,	45433,	45436,	45437,	45438,
45439,	45440,	45444,	45445,	45447,	45454,	45455,	45464,	45465,	45467,
45469,	45474,	45478,	45483,	45484,	45487,	45489,	45492,	45493,	45495,
45496,	45497,	45500,	45501,	45502,	45504,	45505,	45506,	45508,	45511,
45512,	45513,	45516,	45520,	45522,	45528,	45531,	45532,	45534,	45535,
45536,	45537,	45540,	45542,	45543,	45544,	45550,	45553,	45554,	45556,
45558,	45560,	45563,	45564,	45569,	45570,	45572,	45576,	45577,	45578,
45585,	45586,	45589,	45590,	45591,	45594,	45595,	45600,	45601,	45602,
45603,	45605,	45606,	45607,	45611,	45613,	45614,	45615,	45617,	45621,
45623,	45624,	45630,	45631,	45632,	45633,	45636,	45638,	45644,	45645,

45648,	45650,	45656,	45657,	45659,	45663,	45665,	45666,	45667,	45671,
45672,	45674,	45677,	45679,	45685,	45686,	45687,	45689,	45693,	45697,
45698,	45699,	45700,	45705,	45708,	45719,	45720,	45728,	45729,	45733,
45734,	45735,	45736,	45739,	45741,	45742,	45746,	45747,	45748,	45750,
45755,	45757,	45758,	45760,	45761,	45762,	45766,	45767,	45770,	45771,
45774,	45775,	45777,	45778,	45780,	45783,	45784,	45785,	45786,	45787,
45789,	45794,	45799,	45800,	45802,	45803,	45804,	45807,	45808,	45809,
45810,	45811,	45814,	45818,	45820,	45821,	45823,	45824,	45830,	45837,
45839,	45843,	45849,	45847,	45848,	45849,	45854,	45859,	45860,	45865,
45867,	45869,	45872,	45873,	45874,	45879,	45882,	45883,	45885,	45886,

45887,	45891,	45893,	45899,	45910,	45911,	45912,	45914,	45915,	45918,
45919,	45920,	45921,	45923,	45924,	45925,	45926,	45927,	45928,	45929,
45933,	45935,	45940,	45943,	45944,	45945,	45946,	45949,	45950,	45952,
45953,	45956,	45959,	45960,	45967,	45968,	45969,	45970,	45971,	45978,
45980,	45984,	45989,	45992,	45993,	45994,	46002,	46003,	46006,	46008,
46009,	46021,	46022,	46023,	46024,	46025,	46026,	46029,	46030,	46040,
46042,	46042,	46044,	46045,	46046,	46051,	46052,	46054,	46057,	46058,
46062,	46064,	46066,	46068,	46069,	46074,	46076,	46077,	46078,	46081,
46082,	46085,	46086,	46087,	46088,	46094,	46107,	46108,	46110,	46115,
46117,	46120,	46122,	46125,	46128,	46129,	46133,	46137,	46138,	46140,

46143,	46148,	46150,	46152,	46154,	46156,	46158,	46159,	46160,	46166,
46167,	46170,	46171,	46173,	46174,	46175,	46180,	46182,	46188,	46189,
46195,	46197,	46198,	46203,	46204,	46206,	46208,	46210,	46212,	46213,
46214,	46215,	46219,	46221,	46223,	46228,	46233,	46234,	46235,	46236,
46238,	46240,	46241,	46243,	46247,	46248,	46249,	46251,	46256,	46257,
46258,	46259,	46261,	46263,	46266,	46270,	46271,	46275,	46276,	46279,
46283,	46285,	46286,	46287,	46290,	46291,	46292,	46294,	46295,	46296,
46299,	46301,	46302,	46305,	46315,	46316,	46317,	46320,	46323,	46324,
46325,	46327,	46332,	46335,	46341,	46343,	46346,	46348,	46351,	46353,
46355,	46356,	46357,	46359,	46360,	46361,	46364,	46365,	46371,	46372,
46375,	46376,	46379,	46380,	46381,	46382,	46383,	46388,	46389,	46394,
46398,	46899,	46406,	46407,	46408,	46413,	46414,	46415,	46420,	46421,
46422,	46424,	46425,	46426,	46427,	46429,	46431,	46433,	46436,	46438,
46443,	46444,	46446,	46447,	46448,	46453,	46455,	46459,	46462,	46469,
46471,	46472,	46473,	46476,	46479,	46482,	46484,	46489,	46491,	46492,
46493,	46494,	46497,	46500,	46503,	46504,	46505,	46506,	46507,	46508,
46509,	46513,	46519,	46520,	46521,	46523,	46529,	46530,	46531,	46532,
46534,	46535,	46536,	46537,	46538,	46541,	46542,	46543,	46559,	46551,
46555,	46557,	46560,	46561,	46563,	46564,	46573,	46578,	46579,	46580,
46585,	46586,	46587,	46588,	46589,	46591,	46595,	46596,	46599,	46600,
44603,	46606,	46608,	46614,	46615,	46616,	46618,	46619,	46622,	46623,
46627,	46629,	46638,	46639,	46640,	46642,	46644,	46647,	46653,	46654,
46655,	46660,	46663,	46664,	46665,	46666,	46671,	46672,	46676,	46680,
46681,	46684,	46688,	46689,	46691,	46692,	46700,	46702,	46703,	46704,
46705,	46707,	46709,	46713,	46716,	46717,	46719,	46720,	46724,	46725,
46734,	46735,	46737,	46738,	46740,	46741,	46747,	46750,	46751,	46753,
46754,	46755,	46756,	46759,	46763,	46768,	46770,	46771,	46774,	46778,
46779,	46780,	46781,	46782,	46784,	46785,	46787,	46791,	46793,	46798,
46802,	46803,	46805,	46806,	46807,	46809,	46810,	46814,	46815,	46816,
46818,	46819,	46820,	46821,	46823,	46825,	46826,	46828,	46832,	46833,
46834,	46835,	46836,	46842,	46845,	46848,	46849,	46850,	46851,	46852,
46853,	46864,	46865,	46866,	46868,	46870,	46873,	46874,	46875,	46879,
46880,	46882,	46883,	46884,	46885,	46887,	46889,	46890,	46891,	46892,
46894,	46895,	46897,	46902,	46903,	46905,	46907,	46909,	46912,	46913,
46915,	46916,	46917,	46919,	46920,	46921,	46922,	46923,	46924,	46925,
46926,	46927,	46928,	46929,	46932,	46933,	46934,	46935,	46936,	46937,
46940,	46943,	46947,	46950,	46951,	46953,	46954,	46956,	46959,	46960,
46961,	46964,	46968,	46969,	46971,	46972,	46973,	46979,	46981,	46982,
46983,	46984,	46985,	46995,	46997,	46998,	47000,	47001,	47004,	47006,
47007,	47008,	47009,	47016,	47017,	47018,	47020,	47022,	47023,	47025,
47026,	47028,	47029,	47034,	47035,	47037,	47041,	47042,	47043,	47047,
47048,	47049,	47053,	47057,	47058,	47060,	47061,	47062,	47063,	47064,
47074,	47075,	47081,	47083,	47087,	47088,	47089,	47090,	47092,	47095,
47096,	47097,	47100,	47101,	47102,	47103,	47104,	47109,	47110,	47111,
47114,	47117,	47124,	47125,	47126,	47129,	47130,	47133,	47135,	47141,
47142,	47144,	47145,	47146,	47147,	47148,	47149,	47150,	47151,	47153,
47154,	47157,	47158,	47159,	47160,	47165,	47166,	47167,	47171,	47172,
47173,	47175,	47176,	47177,	47179,	47180,	47181,	47182,	47183,	47186,
47187,	47189,	47190,	47191,	47196,	47200,	47202,	47203,	47204,	47206,
47210,	47211,	47213,	47215,	47216,	47217,	47218,	47223,	47224,	47225,
47231,	47234,	47237,	47238,	47239,	47240,	47243,	47244,	47245,	47246,
47253,	47254,	47255,	47258,	47259,	47261,	47262,	47264,	47266,	47267,
47268,	47269,	47272,	47273,	47275,	47277,	47278,	47279,	47280,	47281,
47282,	47283,	47289,	47290,	47291,	47292,	47295,	47296,	47297,	47298,
47303,	47307,	47300,	47309,	47311,	47314,	47315,	47316,	47318,	47319,
47320,	47322,	47323,	47327,	47332,	47335,	47336,	47342,	47343,	47344,
47345,	47346,	47348,	47350,	47351,	47354,	47357,	47358,	47360,	47362,
47363,	47364,	47367,	47368,	47370,	47371,	47372,	47375,	47376,	47378,
47379,	47385,	47386,	47388,	47394,	47396,	47397,	47400,	47401,	47402,
47403,	47404,	47405,	47407,	47408,	47411,	47412,	47416,	47417,	47418,

47419,	47420,	47421,	47422,	47423,	47424,	47425,	47428,	47430,	47434,
47436,	47437,	47438,	47439,	47440,	47441,	47443,	47444,	47446,	47449,
47451,	47452,	47453,	47454,	47455,	47456,	47459,	47461,	47465,	47466,
47467,	47469,	47470,	47472,	47475,	47476,	47479,	47482,	47484,	47485,
47486,	47489,	47490,	47491,	47495,	47496,	47497,	47504,	47505,	47506,
47507,	47508,	47509,	47510,	47511,	47512,	47513,	47514,	47515,	47516,
47517,	47519,	47521,	47524,	47527,	47528,	47530,	47532,	47536,	47539,
47541,	47542,	47546,	47547,	47548,	47550,	47551,	47552,	47554,	47555,
47557,	47563,	47564,	47565,	47566,	47569,	47570,	47571,	47575,	47578,
47579,	47580,	47581,	47585,	47590,	47591,	47592,	47596,	47599,	47600,

47604,	47605,	47606,	47609,	47614,	47618,	47619,	47621,	47623,	47624,
47625,	47626,	47628,	47630,	47632,	47634,	47638,	47639,	47640,	47643,
47647,	47650,	47651,	47652,	47654,	47655,	47658,	47660,	47661,	47663,
47669,	47671,	47678,	47679,	47680,	47684,	47687,	47688,	47690,	47691,
47693,	47694,	47695,	47696,	47697,	47698,	47700,	47702,	47706,	47707,
47708,	47710,	47711,	47712,	47713,	47715,	47718,	47719,	47721,	47724,
47726,	47727,	47728,	47730,	47733,	47734,	47735,	47738,	47743,	47744,
47746,	47747,	47749,	47750,	47752,	47753,	47754,	47755,	47756,	47759,
47760,	47763,	47764,	47768,	47774,	47777,	47778,	47779,	47784,	47785,
47786,	47788,	47790,	47791,	47795,	47794,	47797,	47797,	47802,	47805,

47806,	47809,	47810,	47818,	47819,	47820,	47821,	47822,	47824,	47826,
47828,	47829,	47830,	47831,	47833,	47835,	47840,	47845,	47849,	47850,
47851,	47852,	47853,	47854,	47855,	47858,	47859,	47862,	47863,	47868,
47870,	47871,	47872,	47873,	47874,	47875,	47876,	47877,	47882,	47884,
47885,	47886,	47887,	47888,	47890,	47892,	47893,	47895,	47897,	47906,
47908,	47910,	47911,	47912,	47915,	47916,	47923,	47925,	47926,	47928,
47931,	47933,	47935,	47936,	47937,	47939,	47940,	47941,	47945,	47948,
47950,	47951,	47952,	47953,	47954,	47955,	47961,	47963,	47965,	47966,
47967,	47968,	47972,	47974,	47976,	47980,	47981,	47982,	47985,	47986,
47987,	47992,	47993,	47994,	47997,	48000,	48001,	48003,	48004,	48006,

48011,	48013,	48015,	48017,	48019,	48025,	48026,	48029,	48030,	48031,
48032,	48033,	48034,	48039,	48041,	48044,	48045,	48048,	48049,	48050,
48051,	48052,	48056,	48057,	48059,	48061,	48064,	48067,	48069,	48070,
48071,	48072,	48074,	48075,	48077,	48078,	48079,	48083,	48088,	48089,
48090,	48091,	48096,	48097,	48098,	48099,	48103,	48106,	48109,	48112,
48114,	48116,	48121,	48124,	48126,	48128,	48129,	48130,	48131,	48133,
48134,	48135,	48141,	48142,	48143,	48145,	48147,	48148,	48149,	48155,
48156,	48157,	48158,	48159,	48160,	48166,	48167,	48169,	48170,	48172,
48174,	48177,	48179,	48181,	48183,	48189,	48192,	48193,	48194,	48195,
48199,	48206,	48207,	48208,	48210,	48211,	48212,	48214,	48216,	48217,

48218,	48219,	48220,	48224,	48230,	48232,	48233,	48234,	48235,	48237,
48238,	48240,	48242,	48243,	48245,	48249,	48250,	48251,	48252,	48254,
48256,	48261,	48262,	48263,	48264,	48265,	48266,	48267,	48268,	48269,
48271,	48272,	48273,	48276,	48281,	48284,	48290,	48291,	48292,	48295,
48297,	48299,	48300,	48301,	48302,	48303,	48305,	48306,	48307,	48309,
48311,	48312,	48313,	48315,	48316,	48319,	48321,	48322,	48324,	48325,
48326,	48327,	48332,	48334,	48336,	48338,	48339,	48340,	48347,	48350,
48351,	48354,	48355,	48356,	48358,	48359,	48363,	48364,	48367,	48368,
48371,	48372,	48373,	48379,	48380,	48383,	48384,	48385,	48388,	48391,
48393,	48396,	48397,	48399,	48401,	48402,	48405,	48406,	48407,	48408,

48410,	48413,	48414,	48415,	48416,	48417,	48419,	48421,	48422,	48425,
48427,	48428,	48429,	48431,	48432,	48433,	48436,	48442,	48444,	48446,
48449,	48450,	48453,	48454,	48462,	48463,	48465,	48467,	48468,	48470,
48471,	48472,	48473,	48474,	48479,	48480,	48484,	48485,	48486,	48487,
48489,	48490,	48491,	48692,	48793,	48495,	48498,	48499,	48501,	48503,
48506,	48509,	48510,	48511,	48513,	48516,	48523,	48525,	48526,	48527,
48528,	48529,	48530,	48532,	48534,	48535,	48536,	48537,	48538,	48541,
48546,	48549,	48551,	48552,	48553,	48556,	48561,	48566,	48567,	48568,
48570,	48572,	48575,	48576,	48579,	48580,	48582,	48583,	48585,	48587,
48588,	48590,	48591,	48595,	48598,	48600,	48603,	48604,	48605,	48607,

48608,	48613,	48614,	48616,	48621,	48622,	48623,	48624,	48625,	48626,
48628,	48630,	48631,	48632,	48633,	48634,	48635,	48636,	48638,	48640,
48644,	48645,	48646,	48647,	48648,	48649,	48654,	48656,	48660,	48661,
48662,	48663,	48664,	48667,	48671,	48672,	48674,	48765,	48677,	48679,
48681,	48682,	48683,	48684,	48686,	48688,	48689,	48692,	48695,	48700,
48704,	48705,	48706,	48708,	48710,	48712,	48713,	48714,	48716,	48717,
48718,	48723,	48725,	48727,	48729,	48731,	48733,	48741,	48743,	48744,
48747,	48748,	48749,	48755,	48756,	48757,	48758,	48761,	48762,	48763,
48764,	48768,	48770,	48771,	48774,	48775,	48776,	48778,	48781,	48782,
48783,	48784,	48787,	48788,	48789,	48790,	48791,	48792,	48793,	48794,
48795,	48797,	48799,	48801,	48802,	48804,	48805,	48806,	48807,	48809,
48810,	48811,	48813,	48818,	48819,	48820,	48821,	48822,	48824,	48826,
48827,	48828,	48830,	48831,	48832,	48834,	48835,	48836,	48837,	48843,
48844,	48846,	48851,	48852,	48853,	48855,	48858,	48859,	48864,	48865,
48867,	48869,	48871,	48872,	48878,	48880,	48881,	48882,	48883,	48884,
48885,	48886,	48887,	48888,	48890,	48893,	48894,	48896,	48900,	48904,
48905,	48907,	48908,	48909,	48911,	48912,	48913,	48914,	48915,	48917,
48918,	48920,	48922,	48923,	48925,	48926,	48928,	48931,	48932,	48935,
48936,	48937,	48938,	48939,	48940,	48941,	48942,	48944,	48945,	48948,
48950,	48951,	48953,	48954,	48955,	48956,	48957,	48958,	48961,	48962,
48963,	48964,	48965,	48966,	48967,	48968,	48969,	48970,	48977,	48978,
48981,	48983,	48984,	48985,	48986,	48990,	48992,	48993,	48994,	48996,
48998,	48999,	49002,	49003,	49004,	49005,	49006,	49007,	49009,	49010,
49011,	49014,	49015,	49016,	49020,	49021,	49022,	49024,	49025,	49026,
49027,	49029,	49032,	49036,	49037,	49038,	49039,	49040,	49041,	49043,
49044,	49045,	49047,	49048,	49053,	49054,	49056,	49060,	49061,	49063,
49066,	49067,	49068,	49070,	49071,	49074,	49077,	49078,	49079,	49081,
49082,	49084,	49085,	49086,	49088,	49089,	49091,	49092,	49094,	49103,
49104,	49107,	49110,	49111,	49112,	49113,	49114,	49115,	49116,	49118,
49119,	49121,	49122,	49124,	49125,	49128,	49129,	49130,	49131,	49135,
49136,	49137,	49138,	49139,	49141,	49142,	49147,	49148,	49149,	49162,
49163,	49165,	49166,	49167,	49168,	49172,	49174,	49175,	49184,	49185,
49186,	49187,	49188,	49190,	49191,	49194,	49195,	49197,	49198,	49199,
49202,	49203,	49210,	49211,	49213,	49217,	49218,	49220,	49222,	49225,
49229,	49230,	49232,	49236,	49237,	49239,	49241,	49244,	49246,	49247,
49248,	49250,	49253,	49255,	49256,	49257,	49258,	49259,	49260,	49261,
49262,	49264,	49266,	49267,	49273,	49274,	49275,	49276,	49277,	49278,
49279,	49281,	49282,	49284,	49289,	49291,	49292,	49293,	49294,	49296,
49297,	49298,	49300,	49301,	49302,	49304,	49306,	49307,	49310,	49311,
49312,	49316,	49319,	49320,	49321,	49322,	49323,	49325,	49326,	49327,
49331,	49334,	49339,	49340,	49341,	49342,	49344,	49345,	49346,	49348,
49350,	49352,	49353,	49355,	49361,	49364,	49367,	49368,	49369,	49370,
49374,	49375,	49376,	49377,	49383,	49385,	49386,	49387,	49388,	49389,
49390,	49391,	49393,	49394,	49395,	49400,	49402,	49403,	49405,	49407,
49408,	49409,	49410,	49411,	49412,	49414,	49415,	49416,	49417,	49418,
49420,	49421,	49425,	49427,	49428,	49429,	49432,	49433,	49434,	49435,
49436,	49439,	49440,	49441,	49445,	49447,	49454,	49455,	49456,	49457,
49466,	49467,	49469,	49471,	49472,	49473,	49474,	49477,	49478,	49479,
49481,	49482,	49483,	49484,	49485,	49486,	49487,	49492,	49495,	49496,
49501,	49503,	49504,	49505,	49506,	49507,	49508,	49509,	49511,	49512,
49514,	49515,	49516,	49517,	49518,	49520,	49521,	49524,	49525,	49526,
49528,	49529,	49532,	49534,	49536,	49537,	49538,	49539,	49541,	49542,
49543,	49544,	49545,	49546,	49547,	49549,	49550,	49552,	49553,	49555,
49556,	49557,	49558,	49559,	49561,	49562,	49563,	49564,	49567,	49570,
49572,	49574,	49575,	49578,	49581,	49582,	49583,	49585,	49586,	49587,
49588,	49589,	49590,	49592,	49593,	49594,	49595,	49596,	49597,	49598,
49600,	49601,	49602,	49604,	49606,	49607,	49608,	49609,	49612,	49613,
49614,	49615,	49617,	49620,	49623,	49624,	49625,	49626,	49627,	49628,
49629,	49630,	49632,	49633,	49634,	49635,	49636,	49637,	49638,	49640,
49643,	49644,	49646,	49647,	49649,	49650,	49651,	49654,	49656,	49657

49658,	49659,	49660,	49661,	49662,	49663,	49665,	49669,	49670,	49671,
49672,	49675,	49676,	49678,	49679,	49680,	49683,	49691,	49695,	49696,
49697,	49698,	49700,	49701,	49703,	49704,	49707,	49710,	49711,	49730,
49712,	49713,	49715,	49718,	49719,	49721,	49725,	49727,	49728,	49729,
49731,	49732,	49733,	49734,	49735,	49736,	49738,	49740,	49742,	49743,
49744,	49747,	49748,	49749,	49750,	49751,	49752,	49753,	49754,	49755,
49757,	49758,	49759,	49762,	49769,	49771,	49773,	49774,	49779,	49780,
49782,	49784,	49786,	49787,	49788,	49789,	49790,	49791,	49792,	49793,
49795,	49797,	49799,	49800,	49801,	49802,	49804,	49806,	49808,	49809,
49812,	49817,	49818,	49819,	49824,	49825,	49826,	49827,	49828,	49830,

49832,	49833,	49834,	49835,	49836,	49837,	49838,	49841,	49842,	49843,
49844,	49845,	49846,	49849,	49850,	49853,	49854,	49855,	49856,	49857,
49858,	49859,	49860,	49861,	49862,	49864,	49866,	49867,	49868,	49869,
49870,	49871,	49874,	49875,	49879,	49881,	49883,	49884,	49885,	49886,
49887,	49889,	49892,	49893,	49895,	49900,	49901,	49902,	49903,	49906,
49908,	49909,	49911,	49912,	49913,	49914,	49916,	49918,	49919,	49921,
49922,	49924,	49925,	49926,	49927,	49928,	49930,	49933,	49934,	49936,
49936,	49938,	49939,	49940,	49941,	49942,	49943,	49945,	49948,	49950,
49953,	49957,	49958,	49959,	49960,	49963,	49964,	49965,	49969,	49971,
49971,	49972,	49974,	49980,	49982,	49983,	49985,	49986,	49987,	49988,

49989,	49992,	49993,	49994,	49995,	50000,	50002,	50003,	50005,	50009,
50012,	50013,	50014,	50017,	50018,	50020,	50021,	50022,	50024,	50025,
50027,	50028,	50029,	50031,	50032,	50033,	50040,	50041,	50042,	50048,
50049,	50051,	50056,	50059,	50061,	50062,	50064,	50069,	50070,	50071,
50077,	50079,	50082,	50086,	50088,	50089,	50090,	50091,	50092,	50093,
50094,	50095,	50096,	50098,	50099,	50100,	50101,	50102,	50105,	50106,
50107,	50108,	50112,	50113,	50116,	50117,	50118,	50120,	50121,	50123,
50124,	50125,	50126,	50127,	50128,	50130,	50131,	50132,	50136,	50137,
50140,	50141,	50142,	50144,	50147,	50148,	50149,	50150,	50152,	50154,
50156,	50157,	50158,	50161,	50164,	50165,	50168,	50169,	50171,	50172,

50173,	50175,	50176,	50178,	50181,	50182,	50185,	50187,	50193,	50197,
50200,	50201,	50202,	50203,	50205,	50206,	50208,	50209,	50212,	50213,
50215,	50217,	50222,	50233,	50224,	50225,	50226,	50227,	50231,	50232,
50233,	50234,	50235,	50241,	50242,	50245,	50246,	50247,	50248,	50249,
50250,	50253,	50254,	50256,	50257,	50267,	50268,	50269,	50270,	50271,
50275,	50276,	50278,	50279,	50281,	50282,	50283,	50284,	50285,	50286,
50287,	50289,	50294,	50287,	50300,	50301,	50304,	50305,	50307,	50308,
50309,	50310,	50311,	50316,	50318,	50319,	50320,	50321,	50322,	50324,
50326,	50327,	50328,	50331,	50334,	50335,	50336,	50338,	50339,	50340,
50344,	50349,	50350,	50352,	50354,	50355,	50356,	50357,	50358,	50359,

50360,	50366,	50367,	50368,	50369,	50373,	50374,	50375,	50376,	50380,
50381,	50386,	50388,	50390,	50396,	50400,	50401,	50408,	50409,	50413,
50415,	50420,	50421,	50422,	50424,	50425,	50426,	50427,	50428,	50431,
50430,	50433,	50434,	50435,	50436,	50437,	50438,	50440,	50446,	50447,
50448,	50449,	50452,	50452,	50456,	50459,	50464,	50465,	50473,	50476,
50475,	50477,	50478,	50479,	50480,	50481,	50482,	50485,	50486,	50488,
50489,	50490,	50491,	50493,	50494,	50495,	50496,	50498,	50500,	50501,
50505,	50506,	50507,	50508,	50509,	50511,	50512,	50517,	50518,	50519,
50520,	50522,	50524,	50525,	50526,	50530,	50531,	50534,	50536,	50539,
50542,	50543,	50544,	50545,	50546,	50548,	50550,	50551,	50553,	50554,

50555,	50556,	50557,	50560,	50564,	50566,	50568,	50569,	50570,	50571,
50573,	50574,	50578,	50583,	50584,	50585,	50589,	50590,	50591,	50592,
50593,	50594,	50595,	50596,	50597,	50598,	50599,	50600,	50602,	50603,
50609,	50610,	50611,	50614,	50616,	50617,	50619,	50622,	50623,	50624,
50626,	50629,	50630,	50631,	50633,	50635,	50637,	50638,	50641,	50642,
50643,	50645,	50647,	50648,	50649,	50651,	50652,	50654,	50656,	50657,
50659,	50660,	50661,	50662,	50664,	50666,	50667,	50668,	50669,	50670,
50671,	50672,	50675,	50676,	50678,	50679,	50682,	50683,	50685,	50689,
50690,	50692,	50695,	50697,	50698,	50699,	50701,	50703,	50704,	50705,
50707,	50709,	50713,	50715,	50722,	50724,	50725,	50726,	50729,	50730,

50733,	50736,	50737,	50738,	50739,	50740,	50741,	50742,	50743,	50744,
50750,	50751,	50753,	50754,	50756,	50757,	50759,	50762,	50764,	50766,
50767,	50768,	50769,	50770,	50773,	50776,	50777,	50779,	50780,	50785,
50786,	50793,	50795,	50796,	50797,	50798,	50799,	50800,	50806,	50808,
50815,	50817,	50818,	50819,	50823,	50824,	50825,	50826,	50827,	50829,
50832,	50834,	50835,	50836,	50837,	50838,	50839,	50841,	50844,	50847,
50850,	50852,	50854,	50858,	50859,	50862,	50867,	50868,	50869,	50870,
50871,	50877,	50878,	50879,	50880,	50882,	50883,	50884,	50885,	50886,
50889,	50891,	50892,	50897,	50901,	50902,	50903,	50904,	50906,	50908,
50909,	50910,	50912,	50913,	50915,	50917,	50918,	50920,	50923,	50929,

50930,	50931,	50932,	50934,	50936,	50938,	50941,	50943,	50944,	50045,
50946,	50955,	50956,	50957,	50959,	50961,	50962,	50963,	50964,	50967,
50969,	50971,	50972,	50977,	50982,	50983,	50984,	50985,	50986,	50987,
50988,	50989,	50991,	50992,	50993,	50994,	50997,	50998,	51002,	51006,
51006,	51007,	51008,	51009,	51010,	51011,	51012,	51014,	51017,	51021,
51022,	51023,	51027,	51028,	51029,	51030,	51032,	51033,	51034,	51035,
51036,	51043,	51044,	51048,	51050,	51052,	51053,	51054,	51055,	51057,
51058,	51061,	51062,	51063,	51065,	51069,	51070,	51071,	51072,	51074,
51077,	51078,	51079,	51080,	51081,	51083,	51086,	51087,	51089,	51090,
51091,	51092,	51093,	51094,	51096,	51098,	51099,	51100,	51101,	51102,

51103,	51105,	51106,	51107,	51108,	51110,	51111,	51112,	51113,	51114,
51115,	51116,	51118,	51120,	51121,	51122,	51123,	51124,	51125,	51126,
51127,	51128,	51129,	51131,	51132,	51134,	51135,	51136,	51137,	51138,
51139,	51142,	51143,	51144,	51145,	51146,	51150,	51151,	51152,	51153,
51171,	51172,	51154,	51155,	51156,	51157,	51158,	51159,	51164,	51166,
51167,	51168,	51173,	51174,	51175,	51179,	51180,	51182,	51183,	51184,
51185,	51185,	51189,	51190,	51191,	51192,	51193,	51194,	51198,	51202,
51203,	51204,	51206,	51207,	51210,	51211,	51212,	51213,	51215,	51216,
51223,	51224,	51225,	51227,	51229,	51230,	51231,	51232,	51233,	51234,
51235,	51236,	51237,	51238,	51240,	51244,	51245,	51246,	51247,	51248,

51249,	51251,	51254,	51261,	51262,	51263,	51264,	51267,	51269,	51270,
51271,	51274,	51275,	51276,	51277,	51279,	51283,	51285,	51286,	51289,
51290,	51291,	51292,	51294,	51296,	51297,	51299,	51301,	51302,	51303,
51304,	51306,	51307,	51309,	51310,	51311,	51313,	51315,	51317,	51318,
51319,	51320,	51325,	51327,	51330,	51331,	51332,	51333,	51334,	51335,
51337,	51339,	51340,	51341,	51342,	51343,	51345,	51346,	51349,	51351,
51353,	51356,	51357,	51358,	51359,	51360,	51361,	51362,	51363,	51364,
51365,	51366,	51367,	51368,	51369,	51370,	51372,	51373,	51374,	51375,
51376,	51377,	51381,	51382,	51383,	51385,	51386,	51387,	51388,	51390,
51391,	51395,	51396,	51397,	51398,	51399,	51400,	51402,	51403,	51404,

51406,	51407,	51408,	51409,	51410,	51411,	51412,	51416,	51416,	51419,
51420,	51421,	51423,	51425,	51430,	51432,	51433,	51434,	51438,	51437,
51438,	51440,	51441,	51442,	51443,	51444,	51445,	51447,	51449,	51451,
51452,	51454,	51455,	51457,	51462,	51463,	51464,	51467,	51468,	51470,
51471,	51472,	51473,	51474,	51475,	51477,	51478,	51485,	51486,	51488,
51489,	51497,	51499,	51500,	51501,	51504,	51505,	51508,	51510,	51511,
51513,	51515,	51523,	51524,	51526,	51527,	51528,	51529,	51531,	51532,
51533,	51534,	51535,	51536,	51539,	51540,	51541,	51544,	51546,	51547,
51549,	51553,	51554,	51555,	51556,	51558,	51559,	51561,	51562,	51563,
51565,	51566,	51568,	51571,	51572,	51573,	51575,	51577,	51578,	51579,

51580,	51581,	51582,	51583,	51584,	51585,	51586,	51588,	51589,	51590,
51592,	51594,	51595,	51597,	51598,	51599,	51600,	51601,	51602,	51604,
51606,	51607,	51609,	51613,	51615,	51616,	51617,	51618,	51619,	51620,
51621,	51622,	51623,	51625,	51628,	51629,	51630,	51631,	51632,	51633,
51634,	51636,	51637,	51638,	51640,	51641,	51644,	51645,	51646,	51649,
51651,	51652,	51656,	51657,	51658,	51659,	51660,	51663,	51664,	51665,
51669,	51671,	51674,	51675,	51676,	51678,	51681,	51684,	51685,	51686,
51687,	51688,	51692,	51694,	51695,	51696,	51698,	51699,	51705,	51707,
51708,	51711,	51712,	51714,	51717,	51718,	51719,	51720,	51721,	51722,
51723,	51724,	51725,	51727,	51728,	51730,	51731,	51732,	51733,	51734,

51735,	51736,	51737,	51738,	51739,	51740,	51741,	51743,	51744,	51747,
51749,	51750,	51755,	51756,	51757,	51758,	51762,	51763,	51764,	51765,
51766,	51767,	51769,	51770,	51771,	51772,	51775,	51776,	51777,	51778,
51779,	51780,	51787,	51788,	51789,	51790,	51791,	51792,	51793,	51794,
51795,	51797,	51798,	51799,	51800,	51801,	51802,	51805,	51806,	51807,
51808,	51810,	51811,	51812,	51813,	51814,	51815,	51816,	51819,	51821,
51822,	51826,	51827,	51828,	51829,	51830,	51831,	51832,	51833,	51835,
51837,	51840,	51841,	51842,	51844,	51845,	51847,	51849,	51850,	51851,
51852,	51855,	51857,	51858,	51859,	51860,	51861,	51863,	51864,	51866,
51868,	51869,	51870,	51871,	51872,	51873,	51874,	51875,	51877,	51878,

51880,	51881,	51882,	51883,	51884,	51885,	51889,	51890,	51891,	51892,
51893,	51894,	51895,	51896,	51897,	51898,	51901,	51902,	51903,	51904,
51905,	51906,	51909,	51910,	51911,	51913,	51914,	51918,	51919,	51920,
51921,	51922,	51923,	51925,	51928,	51929,	51933,	51934,	51935,	51936,
51937,	51938,	51939,	51941,	51944,	51946,	51947,	51948,	51949,	51950,
51951,	51952,	51954,	51955,	51956,	51957,	51958,	51959,	51961,	51963,
51966,	51968,	51970,	51971,	51972,	51973,	51974,	51975,	51976,	51978,
51979,	51980,	51981,	51984,	51985,	51986,	51987,	51990,	51991,	51992,
51993,	51995,	51996,	51997,	51998,	51999,	52000,	52002,	52003,	52004,
52006,	52009,	52010,	52011,	52012,	52015,	52018,	52019,	52020,	52021,

52022,	52023,	52024,	52025,	52026,	52029,	52031,	52032,	52035,	52037,
52038,	52039,	52043,	52047,	52049,	52050,	52051,	52052,	52053,	52054,
52055,	52057,	52059,	52063,	52066,	52067,	52068,	52070,	52073,	52075,
52077,	52079,	52082,	52083,	52085,	52086,	52088,	52089,	52090,	52092,
52093,	52094,	52095,	52097,	52098,	52099,	52100,	52101,	52108,	52109,
52110,	52111,	52113,	52118,	52119,	52120,	52121,	52122,	52123,	52124,
52125,	52126,	52127,	52128,	52132,	52133,	52134,	52135,	52136,	52137,
52139,	52140,	52141,	52142,	52143,	52144,	52145,	52149,	52151,	52152,
52153,	52154,	52156,	52158,	52160,	52161,	52163,	52164,	52165,	52167,
52170,	52171,	52172,	52173,	52174,	52176,	52178,	52180,	52182,	52183,

52185,	52186,	52187,	52188,	52189,	52191,	52192,	52193,	52194,	52196,
52197,	52198,	52199,	52200,	52201,	52204,	52210,	52211,	52212,	52213,
52214,	52215,	52216,	52220,	52221,	52224,	52225,	52226,	52227,	52229,
52230,	52232,	52234,	52236,	52240,	52241,	52242,	52243,	52245,	52246,
52247,	52248,	52251,	52256,	52257,	52258,	52260,	52261,	52263,	52267,
52271,	52272,	52273,	52274,	52277,	52278,	52279,	52280,	52281,	52283,
52285,	52286,	52288,	52289,	52290,	52291,	52292,	52293,	52294,	52295,
52297,	52298,	52299,	52300,	52301,	52303,	52304,	52305,	52306,	52307,
52308,	52309,	52311,	52312,	52313,	52314,	52315,	52317,	52318,	52320,
52324,	52327,	52328,	52329,	52330,	52333,	52334,	52335,	52336,	52337,

52338,	52339,	52340,	52343,	52344,	52345,	52346,	52347,	52349,	52351,
52352,	52356,	52357,	52359,	52360,	52361,	52362,	52363,	52364,	52365,
52367,	52368,	52369,	52370,	52371,	52373,	52377,	52378,	52380,	52383,
52384,	52387,	52391,	52392,	52394,	52395,	52396,	52399,	52400,	52401,
52402,	52403,	52404,	52405,	52406,	52407,	52408,	52410,	52411,	52412,
52413,	52414,	52415,	52417,	52418,	52419,	52420,	52422,	52424,	52425,
52427,	52428,	52429,	52430,	52432,	52433,	52434,	52435,	52436,	52437,
52438,	52440,	52441,	52442,	52443,	52444,	52445,	52446,	52447,	52450,
52451,	52452,	52453,	52454,	52455,	52458,	52459,	52460,	52461,	52462,
52463,	52464,	52466,	52467,	52468,	52469,	52470,	52471,	52472,	52474,

52475,	52476,	52478,	52479,	52480,	52481,	52482,	52483,	52484,	52486,
52487,	52488,	52489,	52490,	52493,	52494,	52499,	52500,	52504,	52505,
52509,	52510,	52513,	52514,	52516,	52518,	52522,	52524,	52525,	52526,
52528,	52530,	52531,	52532,	52533,	52534,	52536,	52537,	52538,	52539,
52540,	52542,	52543,	52545,	52546,	52547,	52549,	52551,	52552,	52553,
52554,	52555,	52556,	52557,	52558,	52559,	52560,	52561,	52562,	52563,
52565,	52566,	52567,	52568,	52569,	52570,	52572,	52574,	52575,	52577,
52578,	52579,	52580,	52583,	52584,	52585,	52586,	52587,	52590,	52591,
52592,	52593,	52595,	52598,	52599,	52600,	52601,	52603,	52604,	52605,
52606,	52607,	52608,	52609,	52610,	52611,	52612,	52613,	52614,	52617,

52618,	52619,	52622,	52624,	52625,	52626,	52627,	52628,	52629,	52630,
52631,	52634,	52635,	52637,	52639,	52641,	52642,	52643,	52644,	52645,
52646,	52647,	52649,	52652,	52654,	52655,	52656,	52659,	52660,	52661,
52662,	52663,	52664,	52665,	52667,	52669,	52670,	52671,	52672,	52673,
52675,	52677,	52679,	52680,	52681,	52682,	52684,	52685,	52686,	52687,
52688,	52790,	52691,	52692,	52693,	52695,	52696,	52697,	52698,	52699,
52700,	52702,	52703,	52711,	52714,	52716,	52717,	52718,	52719,	52720,
52724,	52725,	52728,	52729,	52731,	52733,	52735,	52737,	52738,	52739,
52742,	52744,	52745,	52747,	52748,	52749,	52750,	52751,	52752,	52753,
52754,	52755,	52758,	52759,	52760,	52761,	52764,	52765,	52766,	52772,

52773,	52774,	52775,	52776,	52777,	52778,	52779,	52780,	52784,	52785,
52786,	52787,	52788,	52790,	52791,	52792,	52793,	52785,	52796,	51797,
52801,	52802,	52805,	52809,	52810,	52814,	52815,	52816,	52820,	52822,
52825,	52826,	52827,	52828,	52829,	52830,	52831,	52832,	52836,	52839,
52841,	52842,	52844,	52845,	52846,	52847,	52854,	52855,	52856,	52857,
52860,	52861,	52862,	52863,	52864,	52865,	52868,	52871,	52873,	52876,
52878,	52879,	52880,	52881,	52882,	52883,	52887,	52888,	52889,	52892,
52894,	52895,	52896,	52897,	52898,	52899,	52903,	52904,	52905,	52906,
52908,	52909,	52910,	52912,	52913,	52914,	52915,	52918,	52919,	52920,
52924,	52926,	52927,	52928,	52929,	52930,	52931,	52933,	52934,	52935,

52936,	52937,	52944,	52945,	52946,	52947,	52949,	52950,	52952,	52953,
52954,	52955,	52956,	52957,	52958,	52960,	52961,	52962,	52964,	52965,
52966,	52967,	52968,	52969,	52970,	52971,	52972,	52973,	52974,	52975,
52978,	52979,	52980,	52981,	52982,	52983,	52984,	52985,	52986,	52987,
52988,	52989,	52990,	52991,	52992,	52995,	52997,	52998,	53000,	53002,
53003,	53004,	53005,	53006,	53007,	53010,	53011,	53012,	53013,	53014,
53019,	53020,	53021,	53028,	53029,	53030,	53031,	53033,	53034,	53035,
53036,	53037,	53039,	53041,	53043,	53047,	53050,	53053,	53054,	53056,
53057,	53063,	53064,	53066,	53067,	53068,	53069,	53071,	53072,	53075,
53076,	53077,	53079,	53080,	53082,	53083,	53084,	53086,	53087,	53088,

53089,	53090,	53091,	53095,	53096,	53098,	53099,	53101,	53102,	53103,
53105,	53107,	53108,	53110,	53111,	53112,	53113,	53116,	53117,	53118,
53120,	53121,	53122,	53123,	53124,	53126,	53127,	53128,	53130,	53132,
53133,	53135,	53136,	53137,	53138,	53139,	53140,	53141,	53142,	53145,
53147,	53149,	53151,	53153,	53154,	53155,	53156,	53159,	53160,	53161,
53162,	53163,	53166,	53167,	53168,	53169,	53170,	53171,	53173,	53174,
53177,	53178,	53180,	53181,	53183,	53184,	53185,	53186,	53187,	53188,
53189,	53190,	53192,	53193,	53194,	53195,	53197,	53202,	53204,	53205,
53206,	53207,	53209,	53210,	53211,	53212,	53213,	53214,	53216,	53217,
53218,	53219,	53220,	53221,	53222,	53223,	53224,	53225,	53228,	53229,

53230,	53232,	53233,	53234,	53236,	53237,	53238,	53240,	53241,	53242,
53243,	53244,	53245,	53246,	53247,	53248,	53251,	53252,	53253,	53257,
53258,	53260,	53261,	53262,	53263,	53264,	53268,	53269,	53273,	53274,
53275,	53278,	53279,	53281,	53283,	53286,	53287,	53288,	53289,	53290,
53291,	53293,	53294,	53295,	53296,	53297,	53298,	53299,	53301,	53302,
53304,	53306,	53307,	53308,	53315,	53319,	53325,	53326,	53327,	53329,
53331,	53332,	53333,	53335,	53338,	53339,	53340,	53341,	53342,	53343,
53344,	53345,	53347,	53349,	53350,	53351,	53351,	53354,	53355,	53357,
53358,	53360,	53361,	53362,	53363,	53366,	53367,	53370,	53371,	53372,
53373,	53375,	53376,	53377,	53378,	53380,	53381,	53383,	53385,	53386,

53387,	53389,	53390,	53393,	53395,	53396,	53397,	53398,	53399,	53401,
53402,	53404,	53405,	53406,	53407,	53408,	53409,	53411,	53412,	53413,
53415,	53416,	53418,	53419,	53421,	53422,	53423,	53424,	53425,	53426,
53427,	53428,	53430,	53431,	53432,	53433,	53434,	53435,	53438,	53439,
53444,	53445,	53446,	53447,	53448,	53450,	53453,	53457,	53458,	53459,
53460,	53461,	53462,	53467,	53468,	53469,	53472,	53474,	53475,	53476,
53477,	53478,	53479,	53482,	53484,	53486,	53488,	53489,	53490,	53491,
53493,	53496,	53500,	53501,	53504,	53506,	53508,	53513,	53514,	53516,
53516,	53517,	53519,	53521,	53522,	53524,	53526,	53527,	53528,	53535,
53536,	53537,	53538,	53539,	53540,	53541,	53542,	53543,	53545,	53546,

53547,	53549,	53550,	53551,	53553,	53554,	53555,	53556,	53557,	53558,
53562,	53563,	53566,	53567,	53568,	53569,	53570,	53571,	53572,	53573,
53574,	53575,	53576,	53578,	53579,	53581,	53582,	53583,	53584,	53585,
53586,	53587,	53589,	53590,	53591,	53592,	53593,	53594,	53595,	53596,
53597,	53598,	53599,	53600,	53601,	53602,	53604,	53605,	53607,	53608,
53609,	53610,	53611,	53612,	53613,	53614,	53615,	53616,	53617,	53618,
53619,	53620,	53622,	53624,	53625,	53627,	53628,	53629,	53630,	53631,
53634,	53635,	53636,	53637,	53639,	53640,	53641,	53643,	53644,	53645,
53646,	53648,	53649,	53650,	53651,	53652,	53653,	53655,	53657,	53658,
53659,	53660,	53661,	53662,	53663,	53664,	53665,	53669,	53670,	53671,

53672,	53673,	53674,	53675,	53676,	53677,	53678,	53679,	53680,	53681,
53682,	53683,	53685,	53686,	53687,	53688,	53689,	53690,	53691,	53692,
53693,	53694,	53695,	53696,	53697,	53698,	53699,	53700,	53701,	53703,
53704,	53705,	53706,	53707,	53708,	53710,	53711,	53712,	53713,	53714,
53715,	53716,	53717,	53718,	53719,	53720,	53722,	53723,	53724,	53725,
53726,	53727,	53728,	53729,	53730,	53731,	53732,	53733,	53734,	53735,
53736,	53739,	53741,	53742,	53743,	53744,	53745,	53746,	53747,	53748,
53750,	53751,	53752,	53753,	53754,	53755,	53757,	53758,	53759,	53801,
53762,	53763,	53765,	53766,	53767,	53768,	53769,	53771,	53772,	53773,
53775,	53776,	53777,	53778,	53779,	53780,	53781,	53782,	53783,	53784,

53785,	53786,	53787,	53788,	53789,	53792,	53794,	53795,	53796,	53798,
53799,	53800,	53801,	53802,	53803,	53804,	53806,	53807,	53808,	53810,
53811,	53812,	53813,	53814,	53815,	53816,	53817,	53820,	53821,	53822,
53823,	53824,	53825,	53828,	53829,	53830,	53831,	53833,	53834,	53840,
53841,	53842,	53845,	53847,	53848,	53849,	53851,	53852,	53853,	53855,
53856,	53859,	53860,	53861,	53862,	53866,	53867,	53868,	53969,	53870,
53871,	53872,	53875,	53877,	53878,	53879,	53880,	53881,	53882,	53885,
53886,	53887,	53888,	53889,	53890,	53891,	53892,	53893,	53894,	53895,
53907,	53896,	53897,	53898,	53899,	53901,	53902,	53903,	53904,	53905,
53906,	53908,	53909,	53910,	53911,	53912,	53913,	53914,	53915,	53916,

53917,	53919,	53920,	53921,	53923,	53924,	53925,	53926,	53927,	53928,
53929,	53930,	53931,	53932,	53933,	53935,	53936,	53937,	53940,	53941,
53942,	53943,	53944,	53945,	53946,	53947,	53949,	53950,	53951,	53954,
53956,	53957,	53958,	53960,	53961,	53962,	53963,	53964,	53965,	53966,
53967,	53968,	53969,	53870,	53972,	53973,	53975,	53976,	53977,	53978,
53979,	53980,	53981,	53982,	53983,	53984,	53985,	53988,	53989,	53991,
53993,	53994,	53995,	53996,	53997,	53998,	53999,	54000,	54001,	54002,
54003,	54004,	54006,	54008,	54009,	54010,	54011,	54012,	54013,	54014,
54015,	54017,	54018,	54019,	54020,	54023,	54024,	54025,	54026,	54027,
54028,	54029,	54030,	54033,	54034,	54035,	54036,	54038,	54039,	54040,

54041,	54042,	54043,	54044,	54045,	54046,	54047,	54048,	54049,	54050,
54051,	54052,	54053,	54054,	54056,	54059,	54060,	54061,	54064,	54065,
54066,	54067,	54068,	54069,	54070,	54071,	54072,	54074,	54075,	54079,
54080,	54081,	54082,	54083,	54084,	54086,	54087,	54088,	54089,	54090,
54091,	54092,	54093,	54094,	54095,	54096,	54097,	54098,	54099,	54101,
54102,	54105,	54106,	54108,	54110,	54111,	54112,	54115,	54116,	54117,
54118,	54119,	54120,	54121,	54122,	54123,	54129,	54131,	54132,	54133,
54134,	54135,	54136,	54138,	54139,	54140,	54141,	54145,	54146,	54147,
54148,	54149,	54150,	54151,	54152,	54153,	54156,	54157,	54158,	54159,
54160,	54162,	54163,	54164,	54165,	54167,	54168,	54169,	54170,	54171,

54172,	54173,	54174,	54175,	54176,	54177,	54178,	54179,	54180,	54181,
54182,	54183,	54184,	54185,	54186,	54188,	54189,	54193,	54196,	54197,
54198,	54199,	54200,	54201,	54202,	54203,	54204,	54205,	54206,	54207,
54209,	54210,	54211,	54212,	54213,	54214,	54215,	54217,	54218,	54219,
54221,	54223,	54224,	54226,	54227,	54228,	54232,	54233,	54234,	54235,
54236,	54237,	54239,	54240,	54241,	54242,	54243,	54246,	54248,	54249,
54251,	54252,	54253,	54254,	54258,	54259,	54260,	54261,	54262,	54263,
54264,	54265,	54266,	54267,	54268,	54269,	54270,	54271,	54272,	54273,
54274,	54275,	54276,	54277,	54281,	54282,	54284,	54286,	54287,	54288,
54289,	54290,	54291,	54292,	54293,	54294,	54295,	54296,	54297,	54298,

54299,	54301,	54302,	54303,	54304,	54305,	54307,	54308,	54310,	54311,
54312,	54313,	54314,	54315,	54316,	54317,	54318,	54319,	54320,	54321,
54322,	54324,	54325,	54326,	54327,	54331,	54332,	54333,	54334,	54335,
54336,	54337,	54338,	54339,	54340,	54341,	54342,	54344,	54345,	54347,
54349,	54354,	54355,	54356,	54357,	54358,	54359,	54360,	54361,	54364,
54365,	54366,	54367,	54368,	54369,	54370,	54371,	54372,	54373,	54374,
54376,	54379,	54380,	54381,	54382,	54383,	54384,	54385,	54387,	54388,
54389,	54390,	54391,	54392,	54393,	54394,	54395,	54397,	54398,	54400,
54401,	54402,	54403,	54404,	54405,	54406,	54407,	54408,	54409,	54410,
54411,	54412,	54413,	54414,	54415,	54416,	54419,	54421,	54422,	54424,
54427,	54430,	54431,	54432,	54433,	54435,	54436,	54437,	54438,	54439,
54440,	54441,	54442,	54443,	54445,	54446,	54447,	54451,	54454,	54455,
54456,	54457,	54458,	54459,	54460,	54462,	54463,	54464,	54467,	54468,
54467,	54468,	54471,	54472,	54473,	54474,	54476,	54477,	54478,	54479,
54480,	54481,	54483,	54484,	54485,	54486,	54487,	54488,	54489,	54490,
54491,	54492,	54493,	54494,	54495,	54497,	54499,	54500,	54501,	54502,
54503,	54504,	54504,	54506,	54507,	54508,	54510,	54511,	54512,	54514,
54515,	54516,	54517,	54518,	54519,	54520,	54521,	54522,	54523,	54524,
54525,	54526,	54527,	54528,	54529,	54530,	54531,	54532,	54533,	54534,
54535,	54537,	54538,	54539,	54540,	54541,	54542,	54543,	54547,	54546,
54547,	54548,	54549,	54550,	54551,	54552,	54553,	54554,	54557,	54556,
54557,	54558,	54559,	54560,	54562,	54563,	54564,	54565,	54566,	54567,
54568,	54569,	54570,	54571,	54572,	54573,	54574,	54575,	54577,	54578,
54579,	54580,	54581,	54582,	54583,	54584,	54585,	54586,	54587,	54590,
54591,	54592,	54593,	54594,	54595,	54596,	54598,	54600,	54601,	54602,
54603,	54604,	54606,	54607,	54608,	54609,	54610,	54611,	54612,	54613,
54614,	54615,	54617,	54618,	54619,	54620,	54623,	54625,	54626,	54627,
54628,	54629,	54630,	54631,	54632,	54633,	54634,	54635,	54636,	54637,
54639,	54640,	54641,	54642,	54643,	54644,	54646,	54647,	54648,	54649,
54650,	54651,	54652,	54653,	54654,	54655,	54656,	54657,	54658,	54659,
54660,	54661,	54662,	54663,	54664,	54665,	54667,	54668,	54669,	54670,
54671,	54674,	54675,	54676,	54679,	54681,	54682,	54683,	54684,	54685,
54686,	54688,	54689,	54690,	54691,	54692,	54693,	54694,	54695,	54697,
54698,	54699,	54701,	54703,	54704,	54705,	54706,	54707,	54708,	54709,
54710,	54711,	54712,	54713,	54714,	54716,	54717,	54718,	54719,	54720,
54721,	54723,	54724,	54725,	54726,	54727,	54728,	54730,	54731,	54732,
54733,	54734,	54735,	54736,	54738,	54739,	54740,	54741,	54742,	54743,
54744,	54745,	54746,	54747,	54748,	54749,	54750,	54751,	54752,	54753,
54754,	54755,	54757,	54761,	54762,	54764,	54765,	54766,	54767,	54768,
54769,	54770,	54771,	54772,	54773,	54774,	54775,	54777,	54778,	54779,
54780,	54781,	54782,	54783,	54784,	54785,	54786,	54787,	54788,	54789,
54790,	54791,	54792,	54793,	54794,	54795,	54797,	54798,	54799,	54800,
54801,	54802,	54803,	54804,	54805,	54809,	54810,	54811,	54812,	54815,
54816,	54817,	54818,	54819,	54820,	54821,	54823,	54824,	54825,	54826,
54827,	54828,	54829,	54831,	54832,	54833,	54834,	54840,	54841,	54842,
54853,	54843,	54844,	54845,	54846,	54847,	54848,	54849,	54850,	54851,
54852,	54855,	54856,	54857,	54858,	54859,	54863,	54864,	54865,	54866,
54867,	54868,	54869,	54870,	54871,	54872,	54873,	54874,	54875,	54876,
54877,	54878,	54879,	54880,	54881,	54883,	54884,	54885,	54886,	54887,
54888,	54889,	54890,	54892,	54894,	54896,	54897,	54898,	54899,	54901,
54902,	54903,	54904,	54905,	54907,	54908,	54909,	54910,	54911,	54912,
54913,	54914,	54917,	54919,	54920,	54921,	54922,	54923,	54924,	54926,
54927,	54928,	54929,	54935,	54936,	54937,	54938,	54939,	54940,	54942,
54943,	54945,	54947,	54949,	54950,	54952,	54951,	54953,	54954,	54956,
54956,	54957,	54958,	54959,	54960,	54962,	54963,	54964,	54965,	54966,
54967,	54968,	54969,	54970,	54971,	54972,	54973,	54974,	54975,	54976,
54977,	54978,	54979,	54980,	54981,	54982,	54984,	54985,	54986,	54987,
54988,	54989,	54990,	54991,	54993,	54994,	54996,	54997,	54998,	54999,
55000,	55002,	55005,	55006,	55007,	55008,	55009,	55010,	55011,	55012,
55013,	55014,	55016,	55017,	55018,	55019,	55020,	55021,	55022,	55023,

55024,	55025,	55026,	55027,	55028,	55029,	55031,	55032,	55033,	55034,
55035,	55036,	55037,	55042,	55044,	55045,	55046,	55057,	55048,	55049,
55050,	55051,	55052,	55053,	55054,	55055,	55056,	55057,	55058,	55059,
55060,	55061,	55062,	55064,	55065,	55066,	55067,	55068,	55069,	55070,
55071,	55072,	55073,	55074,	55075,	55076,	55077,	55078,	55079,	55080,
55081,	55083,	55085,	55086,	55087,	55089,	55092,	55093,	55094,	55095,
55096,	55097,	55098,	55099,	55100,	55101,	55102,	55103,	55104,	55105,
55106,	55108,	55109,	55112,	55114,	55115,	55116,	55117,	55118,	55119,
55121,	55122,	55125,	55126,	55129,	55130,	55131,	55132,	55133,	55124,
55135,	55137,	55138,	55139,	55141,	55142,	55146,	55147,	55148,	55149,

55150,	55151,	55152,	55153,	55154,	55155,	55156,	55157,	55158,	55159,
55160,	55161,	55163,	55164,	55166,	55167,	55168,	55171,	55172,	55173,
55174,	55175,	55176,	55179,	55180,	55181,	55182,	55183,	55184,	55185,
55189,	55190,	55191,	55192,	55193,	55194,	55195,	55196,	55197,	55198,
55200,	55201,	55202,	55203,	55205,	55206,	55207,	55208,	55209,	55210,
55212,	55213,	55214,	55217,	55218,	55220,	55221,	55222,	55224,	55225,
55227,	55230,	55231,	55232,	55233,	55237,	55238,	55239,	55240,	55241,
55244,	55246,	55248,	55249,	55251,	55252,	55253,	55254,	55255,	55256,
55257,	55258,	55259,	55260,	55261,	55262,	55263,	55264,	55265,	55266,
55267,	55268,	55269,	55270,	55271,	55273,	55275,	55276,	55279,	55280,
55281,	55282,	55283,	55284,	55285,	55286,	55287,	55288,	55289,	55290,

55291,	55292,	55293,	55294,	55295,	55296,	55297,	55298,	55299,	55301,
55302,	55303,	55304,	55305,	55306,	55307,	55309,	55310,	55311,	55313,
55314,	55315,	55317,	55319,	55320,	55321,	55322,	55323,	55324,	55325,
55326,	55327,	55328,	55331,	55333,	55334,	55335,	55336,	55338,	55340,
55341,	55342,	55343,	55344,	55347,	55351,	55352,	55353,	55354,	55356,
55357,	55358,	55359,	55360,	55361,	55363,	55364,	55365,	55366,	55367,
55368,	55369,	55370,	55371,	55372,	55373,	55374,	55375,	55376,	55377,
55378,	55379,	55380,	55382,	55383,	55384,	55386,	55388,	55389,	55390,
55391,	55395,	55396,	55397,	55398,	55399,	55400,	55401,	55403,	55404,

55406,	55407,	55408,	55409,	55410,	55411,	55412,	55413,	55414,	55415,
55416,	55418,	55419,	55420,	55421,	55422,	55423,	55424,	55425,	55426,
55428,	55430,	55431,	55432,	55434,	55435,	55436,	55437,	55438,	55439,
55440,	55441,	55442,	55443,	55444,	55445,	55446,	55447,	55448,	55450,
55451,	55452,	55453,	55454,	55455,	55456,	55457,	55458,	55460,	55461,
55462,	55463,	55465,	55466,	55467,	55471,	55472,	55473,	55474,	55475,
55476,	55477,	55478,	55479,	55482,	55483,	55485,	55486,	55487,	55488,
55489,	55492,	55493,	55495,	55498,	55499,	55500,	55502,	55503,	55505,
55506,	55508,	55509,	55511,	55512,	55514,	55515,	55516,	55518,	55523,
55525,	55526,	55527,	55528,	55529,	55530,	55531,	55532,	55533,	55537,

55538,	55539,	55540,	55541,	55542,	55545,	55546,	55547,	55548,	55549,
55550,	55551,	55552,	55553,	55554,	55555,	55556,	55557,	55558,	55560,
55561,	55562,	55563,	55565,	55569,	55570,	55571,	55572,	55573,	55574,
55576,	55577,	55578,	55579,	55580,	55581,	55582,	55583,	55584,	55588,
55589,	55590,	55591,	55592,	55593,	55594,	55595,	55596,	55597,	55598,
55599,	55600,	55601,	55602,	55603,	55604,	55605,	55606,	55607,	55608,
55609,	55610,	55612,	55613,	55614,	55617,	55618,	55620,	55621,	55622,
55623,	55624,	55625,	55626,	55627,	55628,	55629,	55630,	55631,	55632,
55634,	55635,	55636,	55637,	55638,	55639,	55640,	55641,	55642,	55643,
55645,	55646,	55647,	55648,	55649,	55650,	55651,	55652,	55653,	55654,

55655,	55656,	55657,	55658,	55659,	55660,	55661,	55662,	55663,	55664,
55665,	55666,	55667,	55668,	55669,	55671,	55672,	55673,	55674,	55675,
55677,	55678,	55679,	55680,	55681,	55683,	55684,	55685,	55686,	55688,
55689,	55690,	55691,	55692,	55693,	55694,	55695,	55696,	55697,	55698,
55699,	55700,	55701,	55702,	55703,	55704,	55705,	55706,	55707,	55708,
55710,	55711,	55712,	55713,	55714,	55715,	55716,	55717,	55719,	55720,
55721,	55722,	55723,	55724,	55725,	55726,	55728,	55729,	55730,	55731,
55732,	55733,	55734,	55735,	55737,	55738,	55739,	55740,	55741,	55742,
55743,	55744,	55745,	55746,	55748,	55749,	55750,	55751,	55752,	55753,
55754,	55755,	55756,	55757,	55758,	55759,	55760,	55762,	55763,	55764,

55765,	55766,	55767,	55768,	55769,	55770,	55771,	55772,	55773,	55774,
55775,	55776,	55777,	55778,	55779,	55780,	55781,	55782,	55783,	55784,
55785,	55787,	55789,	55790,	55791,	55792,	55793,	55794,	55795,	55796,
55798,	55799,	55800,	55801,	55803,	55804,	55805,	55805,	55806,	55807,
55808,	55809,	55810,	55811,	55812,	55813,	55814,	55815,	55816,	55817,
55820,	55821,	55822,	55823,	55824,	55825,	55826,	55827,	55828,	55829,
55830,	55831,	55833,	55834,	55836,	55837,	55838,	55839,	55840,	55841,
55842,	55843,	55844,	55845,	55846,	55847,	55848,	55849,	55850,	55851,
55852,	55853,	55854,	55855,	55856,	55857,	55858,	55859,	55860,	55861,
55862,	55863,	55864,	55865,	55866,	55867,	55868,	55869,	55870,	55871,
55872,	55874,	55875,	55876,	55877,	55878,	55881,	55882,	55883,	55885,
55886,	55887,	55888,	55889,	55890,	55891,	55892,	55893,	55894,	55895,
55898,	55899,	55900,	55901,	55902,	55903,	55904,	55905,	55906,	55907,
55908,	55909,	55910,	55912,	55913,	55914,	55916,	55917,	55918,	55919,
55921,	55922,	55923,	55924,	55925,	55926,	55928,	55930,	55931,	55932,
55933,	55934,	55935,	55936,	55937,	55938,	55939,	55940,	55941,	55942,
55944,	55945,	55946,	55947,	55949,	55950,	55952,	55953,	55954,	55955,
55956,	55957,	55958,	55959,	55963,	55964,	55965,	55966,	55967,	55971,
55972,	55977,	55978,	55979,	55976,	55977,	55978,	55979,	55980,	55981,
55982,	55983,	55984,	55985,	55986,	55987,	55988,	55989,	55990,	55991,
55992,	55993,	55994,	55995,	55996,	55997,	55998,	55999,	56000,	56002,
56004,	56005,	56006,	56007,	56008,	56009,	56010,	56012,	56013,	56014,
56015,	56016,	56018,	56019,	56022,	56023,	56025,	56026,	56027,	56028,
56029,	56030,	56031,	56032,	56033,	56034,	56035,	56037,	56039,	56040,
56041,	56042,	56043,	56044,	56046,	56047,	56048,	56049,	56050,	56051,
56052,	56054,	56055,	56056,	56057,	56058,	56059,	56060,	56061,	56062,
56063,	56064,	56065,	56066,	56068,	56069,	56071,	56072,	56073,	56074,
56075,	56076,	56077,	56078,	56081,	56082,	56083,	56087,	56088,	56089,
56090,	56091,	56093,	56094,	56096,	56097,	56098,	56099,	56100,	56101,
56102,	56104,	56106,	56108,	56109,	56110,	56111,	56113,	56114,	56115,
56116,	56117,	56118,	56119,	56120,	56121,	56122,	56123,	56125,	56126,
56127,	56128,	56129,	56130,	56131,	56132,	56133,	56134,	56135,	56137,
56138,	56139,	56140,	56141,	56142,	56143,	56144,	56145,	56146,	56147,
56149,	56150,	56151,	56152,	56153,	56154,	56155,	56156,	56157,	56158,
56159,	56160,	56161,	56162,	56163,	56164,	56165,	56166,	56167,	56168,
56169,	56170,	56171,	56172,	56173,	56174,	56175,	56177,	56178,	56179,
56180,	56181,	56182,	56183,	56188,	56189,	56190,	56192,	56193,	56194,
56195,	56196,	56197,	56199,	56200,	56202,	56204,	56206,	56207,	56208,
56209,	56210,	56211,	56212,	56213,	56214,	56215,	56216,	56217,	56218,
56219,	56220,	56221,	56222,	56225,	56226,	56227,	56228,	56229,	56230,
56232,	56233,	56234,	56236,	56237,	56238,	56239,	56240,	56241,	56243,
56244,	56245,	56246,	56247,	56248,	56249,	56250,	56251,	56252,	56253,
56255,	56257,	56258,	56260,	56261,	56262,	56263,	56264,	56265,	56268,
56269,	56270,	56271,	56272,	56273,	56275,	56276,	56281,	56282,	56285,
56286,	56288,	56289,	56290,	56291,	56292,	56293,	56294,	56295,	56296,
56297,	56298,	56299,	56300,	56301,	56302,	56303,	56304,	56305,	56306,
56307,	56308,	56309,	56310,	56311,	56312,	56313,	56314,	56315,	56316,
56317,	56318,	56322,	56323,	56324,	56325,	56326,	56327,	56328,	56329,
56330,	56331,	56332,	56333,	56334,	56335,	56336,	56337,	56338,	56339,
56340,	56342,	56346,	56347,	56348,	56349,	56350,	56351,	56352,	56353,
56354,	56355,	56356,	56357,	56358,	56362,	56364,	56365,	56366,	56367,
56368,	56369,	56370,	56371,	56372,	56373,	56374,	56375,	56376,	56377,
56378,	56379,	56380,	56381,	56382,	56384,	56385,	56386,	56387,	56388,
56389,	56390,	56391,	56392,	56393,	56394,	56395,	56397,	56398,	56401,
56402,	56403,	56404,	56406,	56407,	56408,	56409,	56410,	56411,	56412,
56413,	56414,	56415,	56416,	56417,	56418,	56419,	56420,	56421,	56422,
56423,	56424,	56425,	56426,	56427,	56429,	56430,	56431,	56432,	56433,
56434,	56435,	56436,	56437,	56438,	56439,	56440,	56441,	56442,	56443,
56447,	56448,	56449,	56450,	56451,	56452,	56453,	56454,	56455,	56456,
56457,	56458,	56459,	56461,	56462,	56463,	56464,	56465,	56466,	56467,

56468,	56469,	56470,	56471,	56472,	56473,	56474,	56475,	56477,	56478,
56480,	56483,	56484,	56485,	56486,	56487,	56488,	56490,	56491,	56492,
56493,	56494,	56496,	56497,	56498,	56501,	56502,	56503,	56504,	56505,
56506,	56507,	56508,	56509,	56510,	56511,	56512,	56514,	56515,	56516,
56517,	56519,	56520,	56521,	56522,	56523,	56524,	56526,	56527,	56528,
56529,	56530,	56532,	56533,	56534,	56535,	56536,	56537,	56538,	56539,
56540,	56541,	56542,	56543,	56544,	56545,	56546,	56547,	56548,	56549,
56550,	56552,	56553,	56554,	56555,	56558,	56559,	56560,	56561,	56562,
56563,	56564,	56565,	56566,	56570,	56571,	56573,	56574,	56575,	56576,
56578,	56581,	56582,	56583,	56584,	56585,	56586,	56587,	56588,	56589,
56590,	56591,	56592,	56595,	56596,	56597,	56598,	56599,	56600,	56601,
56602,	56603,	56604,	56606,	56607,	56608,	56609,	56610,	56612,	56613,
56614,	56615,	56616,	56617,	56619,	56620,	56621,	56622,	56623,	56624,
56625,	56626,	56627,	56628,	56630,	56632,	56634,	56635,	56636,	56637,
56638,	56639,	56639,	56640,	56641,	56643,	56645,	56647,	56648,	56649,
56650,	56651,	56654,	56655,	56656,	56657,	56658,	56659,	56660,	56661,
56662,	56663,	56664,	56665,	56666,	56667,	56668,	56669,	56670,	56671,
56672,	56673,	56674,	56675,	56676,	56678,	56679,	56680,	56681,	56682,
56683,	56685,	56686,	56687,	56688,	56691,	56692,	56693,	56694,	56695,
56699,	56700,	56701,	56702,	56705,	56706,	56707,	56708,	56709,	56710,
56711,	56712,	56713,	56714,	56716,	56717,	56718,	56719,	56720,	56721,
56722,	56723,	56724,	56725,	56726,	56727,	56728,	56729,	56730,	56731,
56732,	56733,	56734,	56735,	56736,	56737,	56738,	56739,	56740,	56741,
56742,	56743,	56744,	56745,	56746,	56748,	56749,	56750,	56751,	56752,
56753,	56754,	56755,	56756,	56757,	56758,	56759,	56760,	56761,	56762,
56763,	56764,	56765,	56766,	56767,	56768,	56769,	56770,	56771,	56772,
56773,	56774,	56775,	56776,	56777,	56778,	56779,	56780,	56781,	56782,
56783,	56784,	56785,	56786,	56787,	56788,	56789,	56790,	56791,	56792,
56793,	56794,	56795,	56796,	56797,	56798,	56799,	56800,	56801,	56802,
56803,	56804,	56805,	56806,	56807,	56808,	56809,	56810,	56811,	56812,
56813,	56814,	56815,	56817,	56818,	56819,	56820,	56821,	56822,	56823,
56824,									
56825,	56826,	56827,	56828,	56829,	56830,	56833,	56834,	56835,	56836,
56837,	56838,	56839,	56840,	56841,	56842,	56844,	56845,	56846,	56847,
56848,	56849,	56850,	56851,	56852,	56853,	56854,	56855,	56856,	56858,
56859,	56864,	56865,	56866,	56867,	56868,	56869,	56870,	56871,	56872,
56873,	56876,	56877,	56878,	56879,	56880,	56881,	56882,	56883,	56885,
56886,	56887,	56888,	56889,	56890,	56891,	56893,	56894,	56895,	56896,
56897,	56898,	56899,	56900,	56901,	56902,	56903,	56904,	56905,	56906,
56907,	56908,	56909,	56912,	56913,	56914,	56915,	56916,	56917,	56918,
56919,	56920,	56921,	56922,	56923,	56924,	56925,	56926,	56927,	56928,
56929,	56930,	56931,	56932,	56933,	56935,	56937,	56938,	56939,	56940,
56941,	56942,	56943,	56944,	56945,	56946,	56947,	56948,	56949,	56950,
56951,	56952,	56953,	56954,	56956,	56958,	56959,	56960,	56961,	56962,
56963,	56964,	56965,	56966,	56967,	56968,	56969,	56970,	56971,	56972,
56973,	56974,	56975,	56976,	56977,	56978,	56979,	56980,	56981,	56982,
56983,	56986,	56987,	56989,	56990,	56991,	56992,	56993,	56994,	56995,
56996,	56997,	56998,	56999,	57001,	57002,	57003,	57004,	57005,	57006,
57007,	57008,	57012,	57013,	57014,	57015,	57016,	57017,	57018,	57019,
57020,	57023,	57024,	57025,	57026,	57027,	57028,	57029,	57030,	57032,
57033,	57034,	57035,	57036,	57037,	57040,	57041,	57042,	57043,	57044,
57045,	57046,	57047,	57048,	57049,	57050,	57051,	57052,	57053,	57054,
57055,	57056,	57057,	57058,	57060,	57061,	57062,	57063,	57064,	57065,
57067,	57068,	57069,	57070,	57071,	57072,	57074,	57075,	57076,	57077,
57079,	57080,	57081,	57082,	57083,	57085,	57086,	57087,	57088,	57089,
57090,	57091,	57092,	57094,	57095,	57096,	57097,	57098,	57099,	57100,
57102,	57104,	57106,	57107,	57108,	57109,	57110,	57111,	57112,	57113,
57114,	57115,	57118,	57119,	57120,	57121,	57122,	57124,	57125,	57126,
57127,	57128,	57129,	57130,	57131,	57132,	57133,	57135,	57136,	57137,
57138,	57140,	57141,	57142,	57143,	57144,	57145,	57146,	57147,	57148,
57149,	57150,	57151,	57152,	57153,	57154,	57156,	57157,	57158,	57159,
57163,	57164,	57166,	57167,	57168,	57169,	57170,	57171,	57174,	57175,

57176,	57177,	57178,	57179,	57180,	57181,	57182,	57183,	57184,	57185,
57186,	57187,	57188,	57189,	57190,	57191,	57192,	57193,	57194,	57195,
57196,	57197,	57198,	57199,	57200,	57201,	57202,	57203,	57204,	57205,
57206,	57207,	57208,	57209,	57210,	57211,	57212,	57213,	57214,	57215,
57216,	57217,	57218,	57219,	57221,	57222,	57223,	57224,	57225,	57226,
57227,	57228,	57229,	57230,	57231,	57232,	57233,	57234,	57235,	57236,
57237,	57239,	57240,	57241,	57242,	57243,	57244,	57245,	57246,	57248,
57250,	57251,	57252,	57253,	57254,	57255,	57258,	57260,	57261,	57262,
57263,	57264,	57266,	57267,	57268,	57269,	57270,	57271,	57272,	57273,
57274,	57275,	57276,	57277,	57278,	57279,	57280,	57282,	57282,	57845,

57286,	57288,	57289,	57290,	57291,	57292,	57294,	57295,	57296,	57297,
57298,	57299,	57300,	57301,	57302,	57303,	57304,	57305,	57306,	57307,
57308,	57309,	57310,	57311,	57312,	57313,	57314,	57315,	57316,	57317,
57318,	57319,	57320,	57321,	57323,	57324,	57325,	57326,	57327,	57328,
57330,	57331,	57332,	57333,	57334,	57335,	57336,	57337,	57338,	57339,
57340,	57341,	57342,	57345,	57346,	57347,	57348,	57349,	57350,	57351,
57352,	57353,	57354,	57355,	57356,	57357,	57358,	57359,	57360,	57361,
57362,	57364,	57366,	57367,	57368,	57369,	57370,	57371,	57373,	57374,
57375,	57377,	57378,	57379,	57380,	57381,	57384,	57385,	57386,	57387,
57388,	57389,	57390,	57391,	57392,	57393,	57394,	57395,	57396,	57397,

57398,	57399,	57400,	57401,	57402,	57403,	57404,	57405,	57406,	57407,
57408,	57409,	57410,	57411,	57414,	57415,	57416,	57417,	57418,	57419,
57420,	57421,	57422,	57424,	57425,	57427,	57428,	57429,	57430,	57431,
57432,	57433,	57434,	57435,	57436,	57437,	57438,	57439,	57440,	57441,
57443,	57444,	57445,	57446,	57447,	57448,	57449,	57450,	57451,	57452,
57453,	57454,	57455,	57456,	57457,	57458,	57459,	57460,	57463,	57464,
57465,	57466,	57467,	57468,	57469,	57470,	57471,	57473,	57474,	57475,
57476,	57477,	57478,	57479,	57480,	57481,	57482,	57483,	57484,	57485,
57487,	57489,	57490,	57491,	57493,	57494,	57495,	57496,	57497,	57498,
57499,	57500,	57501,	57502,	57503,	57504,	57506,	57507,	57508,	57509,

57510,	57511,	57512,	57513,	57514,	57515,	57516,	57517,	57518,	57519,
57520,	57522,	57523,	57524,	57525,	57526,	57527,	57528,	57529,	57530,
57531,	57532,	57533,	57534,	57535,	57536,	57537,	57538,	57539,	57540,
57541,	57542,	57543,	57544,	57545,	57546,	57547,	57548,	57549,	57550,
57551,	57552,	57553,	57554,	57555,	57556,	57557,	57558,	57559,	57561,
57562,	57563,	57564,	57565,	57566,	57567,	57568,	57569,	57570,	57571,
57572,	57573,	57574,	57575,	57576,	57577,	57578,	57579,	57580,	57581,
57582,	57583,	57584,	57585,	57586,	57587,	57588,	57589,	57590,	57592,
57594,	57595,	57596,	57597,	57598,	57599,	57600,	57601,	57602,	57603,
57604,	57605,	57606,	57608,	57609,	57610,	57611,	57612,	57613,	57613,

57614,	57615,	57616,	57617,	57618,	57619,	57620,	57621,	57622,	57623,
57624,	57625,	57626,	57627,	57628,	57629,	57630,	57631,	57632,	57634,
57635,	57638,	57641,	57642,	57643,	57644,	57645,	57646,	57648,	57649,
57649,	57651,	57652,	57653,	57654,	57657,	57658,	57660,	57661,	57662,
57664,	57665,	57667,	57670,	57671,	57672,	57673,	57674,	57675,	57676,
57677,	57678,	57679,	57680,	57681,	57682,	57683,	57684,	57685,	57686,
57687,	57688,	57689,	57690,	57691,	57692,	57693,	57694,	57696,	57697,
57698,	57699,	57701,	57702,	57703,	57704,	57706,	57707,	57708,	57709,
57710,	57711,	57713,	57714,	57715,	57717,	57718,	57719,	57720,	57721,
57722,	57723,	57724,	57725,	57726,	57727,	57728,	57729,	57730,	57731,

57732,	57733,	57734,	57736,	57737,	57738,	57739,	57740,	57741,	57742,
57743,	57744,	57745,	57747,	57748,	57749,	57750,	57752,	57753,	57754,
57755,	57756,	57757,	57758,	57759,	57760,	57761,	57762,	57763,	57764,
57765,	57766,	57767,	57768,	57769,	57770,	57771,	57772,	57773,	57774,
57775,	57776,	57777,	57778,	57779,	57780,	57781,	57782,	57783,	57784,
57785,	57786,	57787,	57788,	57789,	57790,	57795,	57796,	57797,	57798,
57799,	57800,	57803,	57804,	57805,	57806,	57807,	57810,	57811,	57814,
57815,	57816,	57817,	57818,	57819,	57820,	57821,	57822,	57823,	57824,
57825,	57826,	57827,	57828,	57831,	57832,	57833,	57834,	57835,	57836,
57837,	57838,	57839,	57840,	57841,	57842,	57843,	57844,	57845,	57846,

57847,	57848,	57849,	57850,	57851,	57852,	57853,	57854,	57855,	57858,
57859,	57860,	57861,	57862,	57867,	57868,	57869,	57870,	57871,	57872,
57873,	57874,	57875,	57876,	57878,	57879,	57880,	57881,	57882,	57883,
57884,	57886,	57888,	57889,	57890,	57891,	57892,	57893,	57894,	57895,
57896,	57897,	57898,	57899,	57900,	57901,	57902,	57903,	57904,	57907,
57908,	57909,	57910,	57911,	57912,	57913,	57914,	57915,	57917,	57918,
57919,	57920,	57921,	57922,	57923,	57924,	57925,	57926,	57927,	57928,
57930,	57931,	57932,	57933,	57936,	57937,	57938,	57940,	57941,	57942,
57943,	57944,	57945,	57946,	57947,	57948,	57949,	57950,	57951,	57952,
57953,	57954,	57955,	57956,	57958,	57959,	57961,	57963,	57964,	57965,

57966,	57967,	57968,	57969,	57970,	57971,	57973,	57975,	57976,	57977,
57978,	57979,	57980,	57981,	57982,	57983,	57984,	57985,	57986,	57987,
57988,	57990,	57991,	57992,	57994,	57995,	57997,	57999,	58000,	58001,
58002,	58003,	58005,	58007,	58008,	58009,	58010,	58011,	58012,	58013,
58014,	58015,	58016,	58017,	58018,	58019,	58020,	58021,	58022,	58023,
58024,	58025,	58026,	58027,	58028,	58029,	58030,	58031,	58032,	58033,
58034,	58037,	58038,	58039,	58040,	58042,	58043,	58044,	58045,	58046,
58047,	58048,	58049,	58050,	58052,	58053,	58055,	58057,	58058,	58059,
58060,	58061,	58063,	58064,	58065,	58068,	58069,	58070,	58071,	58072,
58073,	58075,	58076,	58077,	58078,	58079,	58080,	58081,	58082,	58083,

58084,	58085,	58086,	58087,	58088,	58089,	58090,	58092,	58093,	58097,
58098,	58101,	58102,	58103,	58104,	58105,	58106,	58107,	58108,	58109,
58110,	58111,	58112,	58113,	58114,	58115,	58117,	58118,	58119,	58120,
58121,	58123,	58124,	58126,	58129,	58131,	58132,	58133,	58134,	58135,
58137,	58138,	58139,	58140,	58142,	58143,	58144,	58146,	58148,	58149,
58150,	58152,	58153,	58154,	58155,	58158,	58159,	58160,	58161,	58162,
58163,	58164,	58165,	58166,	58167,	58168,	58169,	58171,	58172,	58173,
58174,	58176,	58177,	58178,	58179,	58180,	58184,	58187,	58188,	58189,
58190,	58191,	58194,	58195,	58196,	58197,	58198,	58199,	58200,	58201,
58203,	58204,	58205,	58206,	58207,	58208,	58209,	58211,	58210,	58212,

58215,	58216,	58217,	58218,	58219,	58220,	58221,	58223,	58224,	58225,
58227,	58228,	58230,	58231,	58232,	58233,	58234,	58235,	58236,	58238,
58239,	58240,	58241,	58243,	58244,	58247,	58248,	58249,	58250,	58251,
58252,	58253,	58255,	58256,	58257,	58258,	58259,	58260,	58261,	58262,
58263,	58264,	58265,	58266,	58271,	58272,	58274,	58275,	58276,	58277,
58278,	58279,	58281,	58283,	58284,	58285,	58287,	58288,	58289,	58290,
58291,	58292,	58293,	58294,	58295,	58296,	58297,	58298,	58299,	58300,
58293,	58302,	58304,	58305,	58306,	58307,	58308,	58309,	58310,	58311,
58312,	58313,	58314,	58315,	58316,	58317,	58318,	58319,	58320,	58321,
58322,	58323,	58324,	58325,	58326,	58327,	58328,	58329,	58330,	58331,
58332,	58333,	58334,	58335,	58336,	58337,	58338,	58339,	58340,	58341,

58340,	58341,	58342,	58343,	58344,	58345,	58346,	58347,	58348,	58350,
58351,	58352,	58353,	58354,	58355,	58356,	58357,	58358,	58359,	58360,
58361,	58362,	58363,	58364,	58365,	58366,	58367,	58368,	58369,	58370,
58371,	58372,	58373,	58374,	58375,	58376,	58377,	58378,	58379,	58380,
58381,	58382,	58383,	58384,	58385,	58386,	58387,	58388,	58389,	58390,
58391,	58392,	58393,	58394,	58395,	58396,	58397,	58398,	58399,	58400,
58401,	58402,	58403,	58404,	58405,	58406,	58407,	58408,	58409,	58410,
58411,	58412,	58413,	58414,	58415,	58416,	58417,	58418,	58419,	58420,
58421,	58422,	58423,	58424,	58425,	58426,	58427,	58428,	58429,	58430,
58431,	58432,	58433,	58434,	58435,	58436,	58437,	58438,	58439,	58440,
58441,	58442,	58443,	58444,	58445,	58446,	58447,	58448,	58449,	58450,

58451,	58452,	58453,	58454,	58455,	58456,	58457,	58458,	58459,	58460,
58461,	58462,	58463,	58464,	58465,	58466,	58467,	58468,	58469,	58470,
58471,	58472,	58473,	58474,	58475,	58476,	58477,	58478,	58479,	58480,
58481,	58482,	58483,	58484,	58485,	58486,	58487,	58488,	58489,	58490,
58491,	58492,	58493,	58494,	58495,	58496,	58497,	58498,	58499,	58500,
58501,	58502,	58503,	58504,	58505,	58506,	58507,	58508,	58509,	58510,
58511,	58512,	58513,	58514,	58515,	58516,	58517,	58518,	58519,	58520,
58521,	58522,	58523,	58524,	58525,	58526,	58527,	58528,	58529,	58530,
58531,	58532,	58533,	58534,	58535,	58536,	58537,	58538,	58539,	58540,
58541,	58542,	58543,	58544,	58545,	58546,	58547,	58548,	58549,	58550,
58551,	58552,	58553,	58554,	58555,	58556,	58557,	58558,	58559,	58560,
58561,	58562,	58563,	58564,	58565,	58566,	58567,	58568,	58569,	58570,
58571,	58572,	58573,	58574,	58575,	58576,	58577,	58578,	58579,	58580,

58579,	58580,	58581,	58582,	58583,	58584,	58586,	58587,	58588,	58589,
58590,	58591,	58592,	58593,	58594,	58595,	58596,	58597,	58598,	58599,
58600,	58602,	58603,	58604,	58605,	58607,	58609,	58611,	58612,	58613,
58614,	58615,	58616,	58617,	58618,	58621,	58622,	58623,	58624,	58625,
58627,	58628,	58629,	58630,	58631,	58632,	58633,	58634,	58635,	58636,
58637,	58639,	58640,	58641,	58642,	58644,	58645,	58646,	58647,	58648,
58650,	58651,	58654,	58655,	58656,	58665,	58666,	58667,	58668,	58669,
58670,	58671,	58672,	58673,	58674,	58675,	58676,	58677,	58679,	58680,
58681,	58682,	58685,	58687,	58688,	58689,	58690,	58691,	58692,	58693,
58694,	58695,	58696,	58698,	58699,	58700,	58701,	58702,	58703,	58705,

58708,	58707,	58708,	58710,	58712,	58713,	58714,	58715,	58716,	58717,
58718,	58719,	58720,	58721,	58722,	58723,	58724,	58725,	58726,	58727,
58728,	58729,	58731,	58732,	58733,	58734,	58735,	58736,	58737,	58738,
58739,	58740,	58741,	58742,	58743,	58744,	58745,	58747,	58748,	58749,
58750,	58751,	58752,	58753,	58754,	58755,	58756,	58757,	58760,	58761,
58762,	58763,	58764,	58765,	58766,	58767,	58768,	58770,	58771,	58772,
58773,	58774,	58775,	58776,	58777,	58780,	58781,	58782,	58783,	58784,
58785,	58786,	58787,	58788,	58789,	58790,	58791,	58792,	58793,	58794,
58795,	58796,	58797,	58798,	58799,	58800,	58801,	58802,	58803,	58804,
58806,	58807,	58810,	58811,	58812,	58813,	58814,	58815,	58816,	58817,

58820,	58822,	58823,	58824,	58825,	58826,	58827,	58828,	58829,	58830,
58832,	58833,	58834,	58836,	58837,	58839,	58840,	58841,	58842,	58843,
58846,	58847,	58849,	58850,	58851,	58855,	58856,	58857,	58858,	58859,
58860,	58861,	58863,	58864,	58865,	58866,	58867,	58868,	58869,	58870,
58871,	58872,	58873,	58874,	58875,	58878,	58879,	58880,	58882,	58883,
58884,	58885,	58886,	58887,	58888,	58889,	58890,	58891,	58893,	58895,
58896,	58897,	58898,	58899,	58900,	58902,	58903,	58904,	58905,	58907,
58908,	58909,	58911,	58912,	58913,	58914,	58915,	58917,	58918,	58919,
58925,	58926,	58927,	58928,	58929,	58931,	58933,	58934,	58935,	58936,
58936,	58938,	58939,	58940,	58941,	58944,	58945,	58946,	58947,	58948,

58950,	58952,	58953,	58954,	58955,	58956,	58957,	58958,	58959,	58961,
58962,	58963,	58964,	58965,	58967,	58968,	58970,	58972,	58974,	58975,
58976,	58977,	58980,	58981,	58982,	58983,	58985,	58986,	58987,	58988,
58989,	58990,	58991,	58992,	58995,	58996,	58997,	58998,	58999,	59000,
59001,	59002,	59004,	59005,	59006,	59008,	59009,	59012,	59013,	59014,
59015,	59016,	59017,	59018,	59019,	59020,	59021,	59022,	59023,	59024,
59025,	59026,	59027,	59028,	59029,	59030,	59031,	59032,	59033,	59036,
59037,	59038,	59038,	59039,	59041,	59042,	59043,	59044,	59045,	59046,
59047,	59048,	59049,	59050,	59051,	59052,	59054,	59056,	59057,	59058,
59059,	59060,	59061,	59062,	59063,	59064,	59065,	59066,	59067,	59068,

59069,	59071,	59072,	59073,	59074,	59075,	59076,	59077,	59078,	59079,
59080,	59081,	59084,	59086,	59087,	59088,	59089,	59090,	59091,	59092,
59093,	59095,	59096,	59097,	59099,	59100,	59101,	59102,	59103,	59108,
59109,	59110,	59111,	59112,	59114,	59116,	59118,	59119,	59120,	59121,
59122,	59123,	59124,	59125,	59126,	59128,	59129,	59130,	59131,	59132,
59133,	59134,	59135,	59137,	59138,	59139,	59140,	59141,	59142,	59143,
59144,	59145,	59146,	59147,	59148,	59152,	59153,	59154,	59157,	59158,
59160,	59161,	59162,	59163,	59164,	59165,	59166,	59167,	59168,	59170,
59117,	59172,	59173,	59174,	59175,	59176,	59177,	59178,	59179,	59180,
59181,	59182,	59184,	59185,	59186,	59187,	59188,	59189,	59190,	59191,

59192,	59195,	59196,	59197,	59198,	59199,	59200,	59201,	59202,	59203,
59204,	59205,	59206,	59207,	59208,	59209,	59210,	59211,	59212,	59213,
59214,	59215,	59217,	59218,	59220,	59221,	59222,	59223,	59224,	59225,
59226,	59227,	59229,	59230,	59231,	59232,	59233,	59234,	59235,	59236,
59237,	59238,	59239,	59240,	59241,	59242,	59243,	59244,	59245,	59246,
59247,	59248,	59249,	59250,	59251,	59252,	59253,	59254,	59255,	59257,
59258,	59259,	59260,	59261,	59262,	59263,	59264,	59265,	59266,	59269,
59270,	59271,	59272,	59273,	59274,	59275,	59276,	59277,	59278,	59279,
59281,	59282,	59283,	59284,	59285,	59287,	59288,	59289,	59290,	59291,
59292,	59293,	59295,	59297,	59298,	59299,	59300,	59301,	59302,	59303,

59304,	59305,	59306,	59307,	59308,	59309,	59310,	59311,	59313,	59314,
59315,	59316,	59317,	59318,	59319,	59320,	59321,	59322,	59323,	59324,
59325,	59326,	59327,	59328,	59329,	59330,	59331,	59332,	59333,	59334,
59335,	59336,	59337,	59338,	59339,	59340,	59342,	59343,	59344,	59345,
59346,	59347,	59348,	59350,	59351,	59352,	59355,	59356,	59357,	59358,
59359,	59360,	59362,	59363,	59364,	59365,	59366,	59367,	59368,	59369,
59370,	59371,	59373,	59374,	59375,	59376,	59378,	59379,	59380,	59381,
59382,	59383,	59384,	59385,	59386,	59387,	59388,	59389,	59391,	59392,
59393,	59394,	59395,	59397,	59399,	59400,	59401,	59403,	59404,	59405,
59406,	59407,	59408,	59409,	59410,	59411,	59412,	59413,	59414,	59415,

59416,	59418,	59419,	59420,	59421,	59422,	59423,	59424,	59426,	59427,
59428,	59429,	59430,	59431,	59432,	59433,	59434,	59435,	59436,	59437,
59438,	59439,	59440,	59441,	59442,	59443,	59444,	59445,	59446,	59447,
59449,	59450,	59451,	59452,	59453,	59455,	59456,	59457,	59460,	59462,
59463,	59464,	59465,	59466,	59467,	59468,	59469,	59470,	59472,	59474,
59475,	59476,	59477,	59478,	59479,	59480,	59481,	59482,	59483,	59484,
59485,	59486,	59487,	59488,	59489,	59491,	59492,	59493,	59494,	59495,
59496,	59497,	59499,	59500,	59501,	59502,	59503,	59504,	59505,	59507,
59508,	59509,	59511,	59512,	59513,	59514,	59515,	59516,	59517,	59518,
59520,	59521,	59522,	59523,	59524,	59525,	59526,	59527,	59528,	59529,

59530,	59531,	59533,	59534,	59535,	59536,	59537,	59538,	59539,	59540,
59541,	59542,	59543,	59544,	59545,	59546,	59548,	59549,	59550,	59551,
59552,	59553,	59554,	59555,	59556,	59557,	59558,	59559,	59560,	59561,
59565,	59566,	59567,	59568,	59569,	59570,	59571,	59572,	59573,	59574,
59575,	59577,	59578,	59579,	59582,	59583,	59584,	59585,	59586,	59587,
59588,	59591,	59592,	59593,	59596,	59598,	59600,	59601,	59602,	59603,
59604,	59605,	59606,	59608,	59609,	59610,	59611,	59612,	59613,	59614,
59615,	59616,	59617,	59618,	59619,	59620,	59621,	59622,	59623,	59624,
59625,	59626,	59627,	59628,	59629,	59630,	59631,	59632,	59633,	59634,
59635,	59636,	59637,	59638,	59639,	59640,	59641,	59644,	59645,	59646,

59647,	59648,	59649,	59650,	59651,	59652,	59653,	59654,	59655,	59656,
59657,	59661,	59662,	59663,	59664,	59665,	59666,	59667,	59668,	59669,
59671,	59673,	59674,	59677,	59678,	59679,	59680,	59681,	59682,	59683,
59684,	59685,	59686,	59687,	59688,	59689,	59690,	59691,	59692,	59693,
59694,	59695,	59696,	59697,	59698,	59700,	59701,	59702,	59703,	59704,
59705,	59706,	59707,	59708,	59711,	59712,	59713,	59715,	59716,	59718,
59719,	59720,	59721,	59722,	59723,	59724,	59725,	59726,	59728,	59729,
59730,	59731,	59732,	59733,	59734,	59735,	59736,	59737,	59738,	59739,
59740,	59741,	59742,	59743,	59744,	59745,	59746,	59747,	59748,	59749,
59750,	59751,	59752,	59754,	59755,	59756,	59757,	59758,	59759,	59760,

59761,	59762,	59763,	59764,	59765,	59766,	59767,	59768,	59769,	59770,
59771,	59772,	59773,	59774,	59775,	59776,	59777,	59778,	59781,	59782,
59783,	59786,	59787,	59788,	59790,	59791,	59792,	59793,	59795,	59796,
59797,	59798,	59799,	59800,	59801,	59802,	59803,	59804,	59805,	59806,
59807,	59808,	59809,	59810,	59811,	59812,	59813,	59814,	59815,	59817,
59818,	59819,	59820,	59821,	59824,	59825,	59827,	59828,	59829,	59830,
59831,	59832,	59833,	59834,	59835,	59836,	59837,	59838,	59839,	59840,
59841,	59842,	59843,	59844,	59845,	59846,	59848,	59849,	59850,	59851,
59852,	59853,	59856,	59857,	59858,	59859,	59860,	59861,	59862,	59863,
59867,	59868,	59869,	59870,	59871,	59872,	59873,	59874,	59875,	59876,

59877,	59878,	59879,	59880,	59881,	59883,	59884,	59887,	59890,	59891,
59892,	59893,	59894,	59895,	59896,	59897,	59898,	59899,	59904,	59905,
59906,	59907,	59908,	59909,	59910,	59911,	59912,	59913,	59914,	59915,
59921,	59922,	59923,	59924,	59927,	59928,	59929,	59930,	59932,	59933,
59934,	59935,	59936,	59937,	59938,	59939,	59940,	59941,	59942,	59943,
59944,	59946,	59947,	59948,	59949,	59950,	59951,	59952,	59953,	59954,
59956,	59957,	59958,	59959,	59960,	59961,	59962,	59964,	59965,	59966,
59970,	59971,	59972,	59973,	59975,	59976,	59977,	59978,	59980,	59981,
59982,	59983,	59984,	59985,	59986,	59987,	59988,	59989,	59990,	59991,
59992,	59993,	59995,	60000,	60002,	60003,	60004,	60005,	60006,	60007,

60008,	60009,	60010,	60011,	60012,	60013,	60014,	60015,	60017,	60018,
60021,	60022,	60023,	60026,	60027,	60028,	60029,	60031,	60032,	60035,
60036,	60033,	60037,	60039,	60041,	60042,	60043,	60044,	60045,	60046,
60047,	60048,	60050,	60053,	60055,	60056,	60057,	60066,	60069,	60070,
60071,	60073,	60074,	60075,	60076,	60077,	60078,	60079,	60082,	60084,
60085,	60086,	60087,	60088,	60089,	60090,	60091,	60092,	60094,	60095,
60095,	60096,	60098,	60099,	60100,	60101,	60103,	60104,	60105,	60107,
60108,	60109,	60110,	60111,	60112,	60113,	60114,	60115,	60116,	60117,
60118,	60120,	60124,	60125,	60128,	60129,	60130,	60131,	60132,	60133,
60134,	60135,	60136,	60137,	60139,	60140,	60141,	60142,	60143,	60144,

60145,	60146,	60148,	60149,	60150,	60152,	60154,	60155,	60156,	60157,
60158,	60159,	60160,	60161,	60162,	60163,	60164,	60165,	60166,	60169,
60170,	60171,	60172,	60173,	60174,	60175,	60176,	60177,	60178,	60179,
60180,	60181,	60183,	60184,	60186,	60187,	60188,	60189,	60191,	60194,
60195,	60196,	60197,	60198,	60199,	60200,	60201,	60202,	60205,	60206,
60207,	60209,	60210,	60211,	60212,	60213,	60214,	60215,	60216,	60217,
60219,	60220,	60221,	60222,	60223,	60224,	60225,	60226,	60227,	60228,
60229,	60230,	60232,	60233,	60235,	60236,	60237,	60238,	60239,	60244,
60245,	60246,	60247,	60249,	60250,	60251,	60252,	60253,	60254,	60255,
60256,	60257,	60258,	60259,	60260,	60261,	60262,	60264,	60267,	60268,

60269,	60270,	60271,	60272,	60273,	60274,	60275,	60276,	60277,	60278,
60279,	60280,	60282,	60283,	60284,	60285,	60288,	60289,	60290,	60291,
60292,	60293,	60294,	60295,	60296,	60297,	60298,	60299,	60300,	60301,
60302,	60303,	60304,	60305,	60306,	60307,	60309,	60310,	60311,	60312,
60313,	60314,	60315,	60316,	60318,	60319,	60320,	60325,	60329,	60330,
60331,	60332,	60333,	60337,	60339,	60341,	60342,	60343,	60344,	60346,
60348,	60352,	60353,	60354,	60355,	60356,	60358,	60359,	60360,	60363,
60364,	60365,	60366,	60367,	60368,	60369,	60370,	60371,	60373,	60374,
60376,	60377,	60378,	60379,	60382,	60383,	60384,	60385,	60386,	60390,
60391,	60392,	60393,	60394,	60395,	60399,	60400,	60401,	60402,	60403,

60404,	60405,	60406,	60407,	60408,	60409,	60410,	60411,	60412,	60413,
60415,	60416,	60417,	60418,	60419,	60420,	60420,	60421,	60422,	60424,
60427,	60428,	60429,	60430,	60432,	60433,	60435,	60437,	60438,	60439,
60440,	60441,	60442,	60443,	60444,	60446,	60447,	60448,	60449,	60450,
60451,	60452,	60454,	60455,	60457,	60459,	60460,	60461,	60462,	60463,
60464,	60465,	60467,	60468,	60472,	60473,	60474,	60481,	60483,	60484,
60485,	60486,	60487,	60488,	60489,	60490,	60492,	60493,	60500,	60501,
60502,	60503,	60504,	60505,	60508,	60509,	60510,	60512,	60515,	60517,
60518,	60519,	60520,	60523,	60524,	60525,	60526,	60527,	60530,	60532,
60533,	60534,	60535,	60536,	60539,	60540,	60541,	60545,	60546,	60547,

60548,	60550,	60551,	60552,	60554,	60555,	60558,	60559,	60560,	60561,
60562,	60564,	60565,	60566,	60567,	60568,	60569,	60570,	60571,	60572,
60573,	60574,	60575,	60576,	60579,	60581,	60582,	60587,	60588,	60589,
60592,	60593,	60594,	60595,	60597,	60598,	60601,	60602,	60603,	60605,
60606,	60607,	60608,	60613,	60614,	60617,	60620,	60622,	60625,	60626,
60627,	60628,	60630,	60632,	60633,	60636,	60637,	60638,	60639,	60642,
60643,	60644,	60646,	60647,	60649,	60650,	60651,	60652,	60653,	60655,
60656,	60657,	60658,	60659,	60660,	60663,	60667,	60669,	60670,	60672,
60673,	60674,	60677,	60678,	60679,	60680,	60681,	60682,	60685,	60686,
60687,	60688,	60689,	60690,	60691,	60692,	60693,	60697,	60700,	60701,

60702,	60703,	60704,	60705,	60706,	60709,	60710,	60711,	60712,	60713,
60714,	60715,	60716,	60718,	60719,	60721,	60722,	60725,	60727,	60730,
60731,	60735,	60736,	60737,	60738,	60740,	60742,	60744,	60748,	60749,
60751,	60752,	60753,	60754,	60755,	60759,	60760,	60761,	60762,	60764,
60765,	60766,	60767,	60768,	60769,	60770,	60771,	60772,	60774,	60775,
60776,	60777,	60778,	60779,	60781,	60783,	60785,	60787,	60788,	60789,
60790,	60792,	60793,	60796,	60798,	60799,	60801,	60802,	60803,	60805,
60807,	60808,	60813,	60814,	60815,	60816,	60818,	60819,	60823,	60824,
60826,	60827,	60828,	60829,	60831,	60832,	60834,	60836,	60841,	60843,
60845,	60846,	60847,	60849,	60850,	60851,	60852,	60853,	60854,	60855,

60856,	60857,	60858,	60859,	60861,	60862,	60863,	60865,	60866,	60867,
60868,	60869,	60870,	60871,	60872,	60873,	60874,	60875,	60879,	60880,
60881,	60882,	60883,	60884,	60885,	60886,	60889,	60891,	60893,	60894,
60895,	60896,	60899,	60900,	60903,	60905,	60906,	60907,	60914,	60921,
60922,	60924,	60926,	60927,	60928,	60933,	60934,	60940,	60941,	60942,
60944,	60945,	60949,	60951,	60956,	60957,	60958,	60959,	60960,	60961,
60962,	60964,	60965,	60966,	60967,	60968,	60969,	60970,	60971,	60972,
60973,	60974,	60975,	60977,	60978,	60979,	60980,	60981,	60982,	60983,
60985,	60986,	60987,	60988,	60989,	60990,	60991,	60992,	60997,	60999,
61000,	61001,	61002,	61003,	61005,	61006,	61011,	61012,	61015,	61016,
61018,	61019,	61020,	61021,	61022,	61023,	61026,	61028,	61029,	61030,
61031,	61032,	61033,	61034,	61035,	61036,	61037,	61038,	61039,	61040,
61041,	61042,	61043,	61044,	61046,	61047,	61048,	61051,	61052,	61055,
61056,	61057,	61063,	61067,	61071,	61074,	61076,	61077,	61080,	61081,
61085,	61086,	61087,	61089,	61093,	61094,	61095,	61096,	61097,	61098,
61099,	61101,	61102,	61104,	61105,	61107,	61108,	61109,	61110,	61111,
61114,	61118,	61121,	61122,	61123,	61124,	61125,	61127,	61130,	61131,
61132,	61133,	61134,	61138,	61139,	61141,	61142,	61143,	61144,	61146,
61147,	61148,	61149,	61152,	61153,	61156,	61157,	61160,	61163,	61165,
61168,	61170,	61171,	61172,	61179,	61180,	61181,	61187,	61189,	61194,
61195,	61196,	61197,	61198,	61199,	61202,	61205,	61208,	61209,	61210,
61213,	61214,	61216,	61217,	61218,	61219,	61220,	61221,	61222,	61223,
61224,	61225,	61226,	61227,	61230,	61231,	61233,	61234,	61235,	61240,
61241,	61246,	61247,	61251,	61271,	61277,	61279,	61280,	61281,	61282,
61284,	61288,	61289,	61290,	61291,	61300,	61301,	61304,	61305,	61307,
61310,	61314,	61315,	61316,	61317,	61318,	61320,	61321,	61322,	61324,
61325,	61326,	61330,	61331,	61333,	61337,	61339,	61340,	61341,	61342,
61345,	61346,	61347,	61348,	61350,	61354,	61357,	61358,	61359,	61360,
61364,	61368,	61369,	61370,	61371,	61372,	61373,	61374,	61383,	61384,
61385,	61387,	61388,	61389,	61392,	61394,	61395,	61396,	61397,	61398,
61400,	61401,	61402,	61403,	61405,	61406,	61408,	61409,	61410,	61411,
61412,	61413,	61414,	61415,	61417,	61418,	61419,	61420,	61421,	61422,
61426,	61429,	61430,	61432,	61433,	61435,	61437,	61439,	61440,	61441,
61442,	61443,	61444,	61445,	61446,	61447,	61449,	61451,	61452,	61453,
61454,	61455,	61456,	61459,	61460,	61461,	61462,	61463,	61464,	61465,
61467,	61471,	61475,	61479,	61480,	61483,	61486,	61487,	61488,	61491,
61492,	61493,	61494,	61495,	61497,	61498,	61503,	61507,	61509,	61515,
61516,	61517,	61518,	61519,	61523,	61525,	61529,	61531,	61543,	61544,
61547,	61551,	61552,	61554,	61555,	61556,	61558,	61560,	61565,	61566,
61567,	61573,	61576,	61577,	61581,	61584,	61587,	61588,	61590,	61593,
61595,	61596,	61597,	61600,	61601,	61602,	61603,	61605,	61608,	61609,
61610,	61613,	61614,	61622,	61624,	61627,	61628,	61629,	61630,	61633,
61639,	61644,	61645,	61646,	61649,	61650,	61651,	61653,	61654,	61655,
61656,	61657,	61658,	61659,	61660,	61661,	61666,	61670,	61672,	61675,
61676,	61677,	61679,	61683,	61684,	61685,	61687,	61688,	61689,	61690,
61695,	61697,	61698,	61704,	61707,	61711,	61714,	61718,	61719,	61720,
61721,	61722,	61723,	61727,	61728,	61729,	61735,	61736,	61737,	61738,
61739,	61739,	61741,	61744,	61750,	61751,	61752,	61756,	61759,	61767,
61769,	61770,	61774,	61780,	61781,	61782,	61784,	61785,	61786,	61788,
61789,	61793,	61799,	61800,	61801,	61803,	61807,	61810,	61811,	61812,
61813,	61815,	61816,	61817,	61818,	61822,	61825,	61828,	61832,	61834,
61835,	61848,	61853,	61855,	61861,	61862,	61863,	61864,	61865,	61869,
61871,	61879,	61880,	61881,	61882,	61893,	61894,	61895,	61899,	61905,
61906,	61908,	61909,	61912,	61913,	61914,	61918,	61921,	61924,	61925,
61927,	61931,	61932,	61933,	61934,	61935,	61936,	61938,	61939,	61943,
61948,	61949,	61955,	61956,	61959,	61960,	61961,	61962,	61963,	61967,
61970,	61975,	61982,	61984,	61985,	61986,	61987,	61988,	61991,	61995,
61998,	61999,	62001,	62002,	62009,	62010,	62012,	62014,	62015,	62016,
62017,	62019,	62021,	62026,	62033,	62034,	62039,	62040,	62041,	62042,
62048,	62050,	62051,	62052,	62053,	62054,	62055,	62057,	62058,	62059,

62060,	62061,	62065,	62066,	62070,	62071,	62072,	62073,	62074,	62075,
62070,	62082,	62084,	62085,	62091,	62092,	62094,	62097,	62098,	62100,
62102,	62110,	62112,	62113,	62117,	62118,	62120,	62121,	62122,	62123,
62129,	62134,	62135,	62137,	62143,	62144,	62147,	62149,	62150,	62152,
62155,	62158,	62163,	62168,	62169,	62174,	62176,	62180,	62181,	62182,
62185,	62184,	62185,	62186,	62189,	62190,	62191,	62201,	62202,	62200,
62207,	62208,	62209,	62210,	62211,	62215,	62216,	62218,	62220,	62221,
62221,	62237,	62246,	62249,	62251,	62252,	62252,	62261,	62262,	62263,
62268,	62267,	62270,	62271,	62272,	62283,	62284,	62286,	62287,	62288,
62291,	62295,	62296,	62297,	62298,	62299,	62301,	62302,	62304,	62305,
62309,	62310,	62311,	62312,	62313,	62315,	62317,	62321,	62324,	62325,
62330,	62333,	62338,	62339,	62341,	62343,	62353,	62355,	62356,	62358,
62362,	62363,	62366,	62375,	62377,	62378,	62384,	62386,	62387,	62388,
62407,	62408,	62409,	62411,	62412,	62413,	62414,	62415,	62416,	62417,
62422,	62430,	62431,	62432,	62435,	62437,	62439,	62444,	62445,	62447,
62446,	62449,	62450,	62449,	62453,	62454,	62455,	62457,	62458,	62459,
62464,	62465,	62472,	62471,	62476,	62477,	62478,	62481,	62482,	62483,
62484,	62488,	62489,	62490,	62493,	62494,	62497,	62502,	62503,	62504,
62507,	62511,	62512,	62513,	62516,	62517,	62520,	62521,	62522,	62523,
62524,	62528,	62530,	62532,	62534,	62542,	62543,	62544,	62545,	62546,
62567,	62558,	62559,	62560,	62561,	62562,	62563,	62564,	62565,	62566,
62568,	62575,	62579,	62580,	62586,	62589,	62594,	62595,	62596,	62597,
62600,	62610,	62611,	62612,	62614,	62622,	62623,	62625,	62626,	62627,
62628,	62638,	62639,	62640,	62641,	62642,	62645,	62646,	62647,	62648,
62649,	62662,	62664,	62665,	62669,	62674,	62678,	62679,	62680,	62681,
62682,	62705,	62716,	62717,	62732,	62736,	62742,	62744,	62745,	62746,
62747,	62771,	62773,	62774,	62784,	62785,	62794,	62798,	62799,	62800,
62801,	62819,	62820,	62822,	62823,	62835,	62841,	62843,	62844,	62845,
62846,	62852,	62853,	62854,	62863,	62864,	62867,	62868,	62869,	62870,
62871,	62880,	62881,	62882,	62903,	62910,	62918,	62949,	62952,	62953,
62955,	62961,	62965,	62966,	62970,	62976,	62980,	62982,	62983,	62984,
62985,	62997,	62998,	63000,	63012,	63027,	63028,	63029,	63031,	63032,
63033,	63043,	63045,	63046,	63053,	63062,	63064,	63070,	63072,	63073,
63074,	63078,	63079,	63080,	63093,	63094,	63100,	63107,	63108,	63109,
63110,	63119,	63145,	63147,	63148,	63149,	63150,	63151,	63152,	63153,
63154,	63125,	63129,	63130,	63133,	63134,	63139,	63140,	63143,	63144,
63145,	63171,	63177,	63182,	63183,	62185,	63190,	63191,	63192,	63193,
63194,	63201,	63204,	63205,	63218,	63219,	63223,	63238,	63240,	63241,
63242,	63245,	63247,	63248,	63250,	63253,	63258,	63267,	63270,	63271,
63272,	63276,	63278,	63279,	63287,	63289,	63307,	63308,	63313,	63314,
63315,	63336,	63344,	63345,	63380,	63388,	63395,	63401,	63402,	63403,
63404,	63415,	63419,	63423,	63428,	63429,	63431,	63432,	63433,	63434,
63435,	63450,	63544,	63553,	63559,	63560,	63561,	63566,	63567,	63568,
63569,	63485,	63492,	63493,	63494,	63500,	63511,	63519,	63520,	63521,
63522,	63591,	63602,	63603,	63610,	63613,	63615,	63617,	63618,	63619,
63620,	63625,	63626,	63630,	63643,	63656,	63680,	63682,	63683,	63684,
63685,	63717,	63719,	63729,	63737,	63744,	63745,	63770,	63771,	63772,
63773,	63780,	63784,	63785,	63802,	63805,	63807,	63810,	63811,	63812,
63813,	63944,	63845,	63846,	63871,	63873,	63892,	63895,	63896,	63897,
63898,	63996,	63999,	64000,	64038,	64057,	64060,	64068,	64069,	64070,
64210,	64250,	64261,	64262,	64287,	64351,	64382,	64389,	64390,	64391,
64392,	64487,	64496,	64497,	64579,	64613,	64835,			

PART V

Designs registered during the year 1957.

The following designs were registered under the Indian Patents and Designs Act, 1911, during the year 1957. The number included in each entry is the registration number of the design. The date following each entry is the date of registration of the design included in that entry. The date shown in crescent brackets are the dates allowed under Section 78-A of the Act.

CLASS 1.—Articles composed wholly of metal or in which metal predominate and jewellery.

Abdul Rahiman Rasool, Prop. A. R. Welding Works, 22, East Veli Street, Madurai, S. India. 89726. January 29, 1957. Seat.

Amar Cycle Industries, 41 Amrit Kaur Market, Pahar Ganj, New Delhi. 88941. December 3, 1956. Chain cover for cycles.

Amar Nath Dhiman, of Phillaur Dist. Jullundur, Punjab. 89794. February 4, 1957. Roller bearing lower shaft of a chaff cutting machine; 89795. February 4, 1957. Roller bearing upper shaft of a chaff cutting machine.

Amir Ullah Khan, Prop. Streetcraft Gulabi Bagh, Near Roshanara Club, P. B. No. 1393, Delhi. 91107 and 91108. June 1, 1957. A chair.

Amritsar Kohlu Factory, The, Queen's Road, Amritsar. 87450. August 13, 1956. Oil crushing machines.

Anchor Pressings Private Ltd., Anchor Bldgs., Morris Road, Aligarh (U.P.). 90239. March 15, 1957. A key.

Appaji Narayan Rao, 20, Picket Road, Bombay-2. 89768. February 2, 1957. Kanarese type founts.

Asoka Kumar Mukherjee, 8, Bastins Lane, Howrah. 87072. July 14, 1956. Photo-Viewer.

B. R. Dhiman & Sons, Apra, Dist. Jullundur, Punjab. 89859. February 11, 1957. Spring cover in the right hand side portion of a chaff-cutting machine; 89860. February 11, 1957. Dear cover of a chaff cutting machine; 91675. February 23, 1957. Spring cover of chaff-cutting machine.

Bansilal Thakurdas Kansara, of Gandevi, Surat, Bombay. 91906. August 8, 1957. Metal trays.

Baroda Type Foundry. 22/5B Jhamapooker Lane, Calcutta-9, of Messrs. A. T. Dev. Private Ltd. 89639. January 19, 1957. Bengali type faces.

Bayerische Motoren Werke Aktiengesellschaft, (13b) Munchen 13, Lerchenauer Strasse 76, Federal Republic of German. 90979 to 90983. May 16, 1957. Motor cars; 91927. August 12, 1957. Motor car.

Benjamin Electric Limited, The, of Brantwood Works, Brantwood Road, Tottenham, London, E. N. 17, England. 90831 and 90832. May 8, 1957. Electric light reflector.

Berrison, 1-C, Nanabhoy Lane, Fort, Bombay-1. 91214 and 91215. June 18, 1957. Folding suit hanger; 92109. August 28, 1957. Hanger.

Bhudeo Prasad Sharma, Proprietor of Bhudeo Pad-Lok Factory, Barai Street, Aligarh, U.P. 88237. October 9, 1956. Locks.

Binode Chandra Das, C/o Utkal Type Foundry, Cuttack 2. 88904. November 29, 1956. Type faces; 92417. September 17, 1957. Type faces.

Birdi Brothers, 447 Industrial Area-B, Ludhiana. 88991. December 3, 1956. Motor vehicle jack.

Birdi Engineering Works, Maler Kotla (Punjab). 90573. April 15, 1957. Cycle carrier.

Bombay Brass & Metal Works, The, 2nd Panjrapole Road, Bombay-4. 91045. May 27, 1957. A lid for Masala Daba or the like containers ; 91046, May 27, 1957. A container for carrying liquids.

Bajaj Brothers, 76 Lower Circular Road, Calcutta-14. 90685. April 24, 1957. Key Ring.

Chandrakant Tricumdas Khatau, of East and West Building, 49-55, Apollo Street, Fort, Bombay-1. 92900. October 31, 1957. A stand for telephone.

Cigala Appasamy Srinivassalu and Vedachalam Thanigaimalai, trading as The Model Type Foundry, 2/59, Gangathareswarar Koil Street, Purasawalkam, Madras-7. 92063. August 24, 1957. Printing types.

Compagnie Marocaine De Brevets Polymecaniques, of 28 rue Marcel Chapon, Casablanca, Morocco. 89337. January 2, 1957. Lighter ; 89338. January 2, 1957. A tank of a lighter.

Dadajee Dhackjee & Co. Private Ltd., Shree Pant Bhuvan, Sandhurst Bridge, Bombay-7. 89863. February 11, 1957. Scooter-van body.

Duraiswamy Naidu Ratnaswamy Prop., The Modern Type Foundry, 26 Broadway, Madras-1. 91116. June 3, 1957. Type faces.

Friends Type Foundry, of 8-B, Lalbazar Street, Calcutta-1. 90308 to 90310. March 19, 1957. Shape for printing type faces.

Fuji Bussan Company Ltd., of No. 4, Ginza 6-Chome Chon-Ku, Tokyo, Japan, 91485. July 3, 1957. Concrete Mixer.

General Electric Company Limited, The, Magnet House, Kingsway, London W.C. 2, England. 90455 and 90456. (October 24, 1956). A Refrigerator.

Govind Ram Sharma, C/o G. K. Radio Corporation, Chandni Chowk, Delhi. 90297. March 18, 1957. An aerial spool.

Groover's Sons, Fountain, Delhi-6. 92380. September 16, 1957. Frame for spectacles.

Gujjar Singh & Sons, G. T. Road, Goraya, Dt. Jullundur, Punjab. 88940. December 1, 1956. Front plate of chaff cutter machine.

Gulamhusein Tyebbhahi Engineer, Prop. Hind Glass Industries, of Pranjivan Bldg., Narayan Dhuru Cross Lane, Abdul Rehman Street, Bombay-3. 90435. March 29, 1957. A mirror frame.

Gurdittamal & Sons, V. & P.O. Chah Bilgan, District Jullundur, Punjab. 89861. February 11, 1957. The gear frame of the bullocks driven chaff-cutting machine.

H. A. Nanji & Co., 46 Ezra Street, Calcutta-1. 91943. August 20, 1957. Buckets.

Haji Abdul Majid, Sheedee Sarai, Moradabad, U.P. 89584. January 15, 1957. Tray.

Haji Abdul Wahab, Moradabad General Art Metal Mills, Bhatti Street, Moradabad, U.P. 90987. May 17, 1957. Hookka.

Hari Pada Saha, No. 24, Saha Nagar Road, Calcutta-26. 88932. November 30, 1956. Ring.

Hind Harmonica Industries, 30 Karanpara Street, Rajkot, Saurashtra. 91175. June 14, 1957. Mouth organ.

Hiralal Maganlal Kansara, Haripura Near Tartia Hanuman, Surat. 88662. November 12, 1956. Pan-daan ; 92468. September 24, 1957. Pan-daan.

Honest Moulding Works, Variavi Bhagol, Surat, Bombay, 92253. September 9, 1957. Water tap.

Hoover Limited, of Perivale, Greenford, Middlesex, England. 90317. March 20, 1957. A suction cleaner casing.

Imtiaz Ali, Mohd. Yusuf and Zulfiqar Hussain, 1965 Bazar Lal Kuan, Delhi. 90693. April 25, 1957. Electrical stove in which metal predominates.

J. C. Hui & Company, of 12/B Netaji Subhas Road, Calcutta. 87420. August 11, 1956. Hindi type faces ; 91226 to 91228. June 19, 1957. Hindi type faces.

Jadiya Manufacturing Co., of Gopipura Khetrpal's Street, Surat. 90040 to 90042. February 25, 1957. Coiled spring beds.

Jamal's Corner Shop, 27/32 Evening Bazaar Road, Madras-3. 91721. July 29, 1957. Bedroom Lamps.

Jan Tin Industries, Pul Bangash, Delhi-6. 89690. January 25, 1957. Bell-wheel toy.

Jaswant Rai Sethi, Prop. Jaswant Rai & Sons, 719 Model Town, Karnal (Punjab). 91747. July 31, 1957. A cycle saddle.

Jyoti Trading Co., Sitaram Bldg., 1st Floor, Block B, Near Crawford Market, Bombay-1. 91021. May 22, 1957. Fruit juice extractors.

Kala Chand Mullick, 21 College Street, Calcutta-12. 89787. February 4, 1957. Cooker.

Karnani Metal Fabricators and Electro Depositors, 3/1 Mohon Bagan Lane, Calcutta-4. 92530. September 26, 1957. Chairs.

Kehar Singh Shankar Singh and Bros., of Goraya, Jullundur, Punjab. 89127. December 11, 1956. Right side Plate (Pankha) for chaff cutter machine ; 89123. December 11, 1956. Left side plate (Pankha) for chaff cutter machine ; 89129. December 11, 1956. Frame on which the chaff cutter machine is fitted ; 89242. December 21, 1956. Flywheel cover of the chaff cutter machine.

Krishnan Achari Nanuvel, of Sri Narayana Motor Industrial and Welding Works, North Veli St., Simmakkal, Madurai, Madras. 89736. January 29, 1957. Stool.

Lakhani Industries, of 162 Tardeo Road, Tardeo, Bombay-7. 89920. February 18, 1957. An ash-tray.

Lakhi Trading Company, Shop No. 8-9, Jai Hind Estate, Bhuleswar, Bombay-2. 89405. January 7, 1957. A lid for a container or a daba.

Lakshmiratan Cotton Mills Co. Ltd., of Behari Niwas, Kanpur, U.P. 90462. April 5, 1957. A loom picker.

Lal Singh Shakar Singh. Village Boparai Khurd. P. O. Goraya, Jullunder Dist., Punjab. 88042. September 20, 1956. Lock washer and stud of an axle rod of a chaff cutting machine.

Les Ateliers de Construction Ventola. Societe Anonyme. of 155 Hant Chemin, Ghent, Belgium. 91758. August 1, 1957. An apparatus for sucking up dust.

Madras Type Foundry, The 38, Jones Street, Madras 1. 89585. January 15, 1957. Type faces ; 90119. March 4, 1957. Vemanna type faces ; 91740 and 91741. July 30, 1957. Type faces.

Malerkotala Cycle & Iron Industrial Co-operative Union Ltd., Sherwani Gate, Malerkotala, Punjab. 92077. August 26, 1957. A chain wheel of a bicycle.

Mital Rolling Mills, Budh Bazar, Moradabad, U.P. 87856. September 8, 1956. Stainless steel entree dish ; 88444. November 24, 1956. Stainless steel entree dish ; 88845. November 24, 1956. Stainless steel entree dish ; 88846. November 24, 1956. Stainless steel bowl ; 88847. November 24, 1956. Stainless steel tumbler ; 88848. November 24, 1956. Stainless Steel cup ; 88849. November 24, 1956. Stainless steel tumbler ; 88850. November 24, 1956.

Stainless steel plate ; 88851. November 24, 1956. Stainless steel tray ; 88852. November 24, 1956. Stainless steel kidney-shaped tray.

Mohammed Yasin, of Indian Kanta Works, 8170 Chimni Mill, Bara Hindu Rao, Delhi. 90227. March 12, 1957. Handle of the weighing scale.

Mohd. Umar, Mohd. Ibrahim, Zikur Rehman, Msmt. Amna Bi and Msmt. Zohrah Bi, trading as Best & Co., of 297-1, Upper Circular Road, Rajabazar, Calcutta-9. 89159. December 13, 1956. Handles for trunks, suitcases and cases for other articles like typewriter and other like equipments.

Mon Mohan Das, 57 Clive Street, Calcutta. 83406. January 7, 1957. Weight.

Muthukumarasami Servai Pichai Servai Murugesan, of House Land Manufacturers, 104-A, Dindigul Road, Madurai, Madras. 89645. January 21, 1957. Cycle bumper clips.

Naba Kumar Routh, of 56, Clive Street, Calcutta. 92202. September 4, 1957. Punner ; 92550. September 28, 1957. Punner ; 92688 and 92689. October 10, 1957. Punner.

Nagar Andul Veeraraghavalu Naidu, Prop. Shri Ananda Type Foundry. Koppikar Road, Hubli City, Dist. Dharwar, Mysore. 91711 and 91712. July 26, 1957. Kanada font types.

Nanda Lall Ghose, 114 Makardah Road, Howrah. 88808. November 22, 1956. Metal weight.

National Carbon Company (India) Ltd., of 18A, Brabourne Road, P.O. Box 2170, Calcutta-1. 92456 to 92460. September 21, 1957. A case for a flashlight.

Nelson & Company, 62 Swamy Pillai Street, Choolai, Madras. 89911. February 16, 1957. Tamil type fonts.

New Model Industries, Jangpura Road, Jangpura, New Delhi 14. 88769. November 19, 1956. A pinch clip ; 88770. November 19, 1956. A test tube holder ; 90976. May 15, 1957. A test tube holder. 92193. September 3, 1957.

Norton & Company, 1-16 Baker Tiruvengada Mudali Street, Choolai, Madras-7. 91035. May 23, 1957. Tamil type fonts ; 91538. July 10, 1957. Type founts ; 92237. September 7, 1957. Type founts ; 92466. September 24, 1957. Type founts.

Orient General Industries Ltd., 6, Ghorebibi Lane, Narkeldanga, Calcutta-11. 89060. December 6, 1956. Electric fan.

P. L. and Brothers, Rang Mahal, Aligarh. 88297. October 18, 1956. Locks.

Padam & Co., Industrial Area B, Ludhiana (Punjab). 92024. August 22, 1957. Cycle Stand.

Philip Walmsley, of 25, Portland Place, Brighton, Sussen, England. 89311. (August 20, 1956). A whisk for culinary purposes.

Prakash Type Foundry, 495 Narayan Peth, Poona 2. 92271 and 92272. September 11, 1957. Printing types ; 92520. September 26, 1957. Printing types.

Prem Narain Sharma, P. O. Baraut, District Meerut, U.P. 87934. September 13, 1956. Steel wheel for all kinds of rubber tyres especially for animal driven vehicles and tractor trailers.

Prithi Pal Singh, 22 Gopalnagar, P.O. Tilaknagar, New Delhi-18. 87398 and 87399. August 9, 1956. An oil can.

Raja Ram Type Foundry, Katghar, Allahabad. 88937. November 30, 1956. Printing types ; 90953 and 90954. May 14, 1957. Type faces ; 91326. June 24, 1957. Printing types ; 92034 and 92035. August 22, 1957. Printing types.

Ramani Mohan Sarkar, 27 Dakshinpara Road, South Dum Dum, 24-Parganas. 87913. September 1, 1956. Carriage for carrying the sick, the invalid, the dead bodies and the like.

Ramapati Ghosh, of 60/1 Lakshmandas Lane, Howrah. 90087 and 90088. February 28, 1957. Bracket.

Ramchandra Subraminia Aiyar and Sitarama Natesa Aiyar, of 8-1-45 Sarvamanya Agraharam Kuttalam Post, Tanjore District, Madras. 89837. February 8, 1957. Stand ; 90844 and 90845. May 10, 1957. Stand.

Remington Rand of India Limited, of 3 Council House Street, Calcutta-1. 89672. January 24, 1957. A currency conversion slide.

Saturn A. G., of Frohburgstrasse, 242, Zurich, Switzerland. 88443. October 24, 1956. A washing apparatus, in particular centrifuges and washing machines.

Shamim Brothers, Manik Chowk, Aligarh, U.P. 89866 to 89868. February 11, 1957. The clip.

Shree Vishwakarma Industries, of 192, Cross Street, Calcutta. 89325 to 89328. December 31, 1956. Bucket.

Singer Manufacturing Company, The, of Elizabeth, New Jersey, United States of America. 89611. January 17, 1957. A sewing machine ; 92254. September 9, 1957. A stitch indicator plate for sewing machines.

Somchand Brothers, of 12 Mangesh Senoy Street, Bombay-1. 88761 November 17, 1956. Bottle capping device.

Somnath Dhiman, S/o Shri Charan Dass Dhiman, of Mohalla Karar Khan, Jullundur City, Punjab. 88705 to 88707. November 15, 1956. Bobbin winder and tension angle assembly of a sewing machine.

Tek Singh, 43-B Jain Nagar, Meerut City (U.P.) 88541. November 3, 1956. Surgical dressing drum.

Telaria Novelties, 98-104 Dady Sheth Agiary Lane, Cavel Street, Kalbadevi Road, Bombay-2. 91647. July 22, 1957. Lamp made of Brass metal ; 91648. July 22, 1957. Betel box (Pan-Dan) made of Brass metal.

Tentor Steel Company Limited, The, of Bermuda Fire and Marine Building Hamilton, Bermuda. 87451. August 13, 1956. Twisted rib bar.

Thipparamahadevi Kuppuswamy Venkatesan, Senior Director, The Jupiter Press Private Limited, 109-C Mount Road, Teynampet, Madras 18. 88717. November 16, 1956. Type faces.

Turissa Nahmaschinenfabrik A. G., Dietikon Ueberland Strasse 16, Zurich, Switzerland, a Swiss Company. 90000. February 20, 1957. Sewing machine.

Utility Products Private Ltd., Sambawa Chambers, Sir Phirozshah Mehta Road, Fort, Bombay-1. 89752. January 30, 1957. Automatic sprinklers.

Uttam Chand. of Sharma Cycle Industries 6919 Nabi Karim, Multani Dhanda, Paharganj, New Delhi. 90815. May 6, 1957. Cycle chain cover.

V. Chhibber & Co., of 222E, Bellasis Road, Byculla, Bombay 8. 89812. February 6, 1957. The two-seater tri-cycles for children ; 91055. May 27, 1957. Padal driven taxi-motorcar for children ; 91646. July 22, 1957. Perambulators for children ; 92495. September 25, 1957. Push carriages for children.

Vashdev Chelaram Rajwaney. Prop. National Supply and Distributing Agency, Hira Mahal Bldg., 250 Kalbadevi Road, Bombay-2. 91941. August 17, 1957. Iron clad switchgear.

Messrs. Wattan Singh & Sons, Goraya Punjab and Messrs. Kehar Singh Shankar Singh & Bros., Goraya, Punjab. 90430 to 90432. March 29, 1957. Stands for chaff cutting machines.

Zenith Cycle Industries, 9 Faiz Bazar, Darya Ganj, Delhi. 91693. June 25, 1957. Cycle fork.

CLASS 2.—*Books and Bookbinding of all materials.*

NIL

CLASS 3.—*Articles composed wholly of India rubber, wood, bone, ivory, papier maché, celluloid, bakelite or like substances or of materials in which such substances predominate (except articles included in Class 10).*

A. M. I. (International), S. A., of Calle Novena, No. 7-5, Panama City, Panama. 92090. August 27, 1957. Phonograph Cabinet.

Abdul Aziz Haji Ahmad and Abu Baker Ahmed, Fancy Mahal, 5th Floor, 170 Mohamedali Road, Bombay-3. 91759. August 2, 1957. Folding chair.

Aero Modellers (India), 95 Kamla Market, New Delhi. 91696. July 25, 1957. Toy (Model Plane).

Asoka Kumar Mukherjee, 8 Batins Lane, Howrah. 87073. July 14, 1956. Photo-viewer.

Bajaj Brothers, 76 Lower Circular Road, Calcutta 14. 90686. April 24, 1957. Key ring.

Bandoola Industrial Corporation, No. 25, 56th Street, Rangoon, Burma. 92208. September 5, 1957. A comb.

Bata Shoe Company Private Limited, of 30 Theatre Road, Calcutta-16. 91649 to 91654. July 22, 1957. A sole for footwear; 92203. September 4, 1957. A sole for footwear; 92204. September 4, 1957. A sole and heel for footwear.

Bharat Plastics Limited, 6 Old Post Office Street, Calcutta-1. 91054. May 27, 1957. A box.

Bright Brothers Private Limited, 156A Tardeo Road, Bombay-7. 92410. September 16, 1957. Telephone Index; 92411. September 16, 1957. Heart shaped containers; 92448. September 18, 1957. Pails for children; 92600. October 5, 1957. Stopper for bottles and containers.

De-Luxe Cosmetics, 53-76, W.E.A., Karol Bagh, New Delhi. 89407. January 7, 1957. A container for lip-stick.

Dunlop Rubber Company Limited, of Fort Dunlop, Erdington, Birmingham-24, England. 89308. (September 27, 1956.) A tyre for a vehicle wheel; 90792. (December 1, 1956.) A tyre for a vehicle wheel; 90830. (January 30, 1957.) A tyre for a vehicle wheel.

Dwijendra Nath Chaudhuri, 35, Paddopukur Road, Calcutta-20. 88223. October 8, 1956. Link unit.

Enkay Rubber Mills, G. T. Road, Shahdara-Delhi. 89748. January 30, 1957. Hot-water bag.

Filip Limited, of Lion House, Red Lion Street, London. W.C. 1., England. 91946 to 91951. August 20, 1957. A bottle or container with cap.

Harjit Singh Khanna, of 116, Chittaranjan Avenue, Calcutta. 91532. July 6, 1957. Hair clips; 91533. July 6, 1957. Rattle.

Hazi Mohamed Obaidulla, 701, Chickpet, Bangalore 2. 88356. October 23, 1956. Rubber soles and heels of shoes; 91719. July 27, 1957. Sole for shoe.

Hazi Nabibux Hasanali, of Pali-P.O., Rajasthan. 91421. July 1, 1957. A plastic churi or bangle.

Hind Plastic Works Private Ltd., 16, Pageyapatti Street, Calcutta-7. 90428. March 29, 1957. Tooth brushes; 90429. March 29, 1957. Bobbins; 92158. August 31, 1957. Combs.

Hoover Limited, of Perivale, Greenford, Middlesex, England. 90405. (January 30, 1957.) A suction cleaner casing.

India Tyre & Rubber Company Limited, of Inchinnan, Renfrewshire, Scotland. 90092. (November 8, 1956). A tyre for a vehicle wheel; 91022. (January 30, 1957). A tyre for a vehicle wheel; 91630. (March 2, 1957). A tyre for a vehicle wheel.

Johnson & Johnson, 501 George Street, New Brunswick, New Jersey, U.S.A. 89876. February 12, 1957. Tooth brushes.

Kantilal Kalidas Patel, 43 Poi Building, Girgaum, Bombay-4, 89160. December 14, 1956. Bangles.

Klin Laboratories, Amar House, Arthur Bunder Road, Colaba, Bombay-5. 92869. October 28, 1957. Tooth brush.

Krishan Lall Varma, Gandhi Road, Dehra Dun, U.P. 87321. August 2, 1956. Commode.

Lakshmiratan Cotton Mills Co. Ltd., of Behari Niwas, Kanpur, U.P. 90463. April 5, 1957. A loom picker.

Linger-Werke GmbH, Dusseldorf Berliner Alle 57, Germany (West). 92455. September 20, 1957. Bottle.

Mazumdar Bros. & Co., of 12 Jackson Lane, Calcutta-1. 91690. July 24, 1957. A plastic funnel.

Mohd. Rafi, of 2463 Katra Rajji G. B. Road, Delhi. 90602. April 16, 1957. Switch (for cycle lamp).

Molite Industries, 3003 Bahadur Garh Road, Delhi. 90572. April 15, 1957. The roof lamp (for motor cars and buses).

Prestige Group Limited, The, of Prestige House, 14-18, Holborn, London, E. C. 1, England. 91229. (May 27, 1957). A fruit and vegetable peeling or cleaning machine.

Ramavatar Sharma, of Gulab Perfumery Works, of 1-B, Burman Street, Machuabazar, 2nd floor, Room No. 33, Calcutta 7. 89666. January 22, 1957. Container.

Remington Rand of India Limited, of 3 Council House Street, Calcutta-1. 89673. January 24, 1957. A currency conversion slide.

Salil Kumar Chakraborty, 3, The Mall, Dum Dum, Calcutta-28. 88677. November 13, 1956. Shoe soles and heels.

Salkia Plastic Industry, 172/1, J. N. Mukherjee Road, Post Salkia, Howrah. 92531. September 26, 1957. An eye protector.

Sami Ullah Khan, of Mohalla Nala, P. O. Firozabad, Dt. Agra, U.P. 87931 and 87932. September 13, 1956. Wooden moulders for manufacturing bangles.

Sangram Singha Talukdar, 5 Commercial Buildings, 23 Netaji Subhas Road, Calcutta. 91071. May 28, 1957. Hard Rubber ends of Jute Mill Bobbins.

Sham Sundar Puri, of Punjab Cottage Industries, 150 Lower Chitpur Road, Calcutta. 90637 and 90688. April 24, 1957. Hair adorning articles such as artificial Bouquet, artificial flower and Broach.

Shantilal Pranshankar Joshi, C/o, Espee and Company, 289 Netaji S. B. Road, Madras-1. 89255. December 24, 1956. A seal made of plastic, rubber or like material.

Shantilal (Private) Limited, 12/14, New Hanuman Lane, Princess Street, Bombay-2. 90199. March 11, 1957. Hot water bag.

Singhanian and Uapadia Manufacturing Company, formerly of Wagh Wadi 404-AA, Kalbadevi Road, Bombay-2 and now of 1/406, G. T. Road, Delhi-Shahdara. 90036. February 25, 1957. Toys; 90086. February 27, 1957. Toys.

(Smt.) Sushila Devi, 70, Darya Ganj, Delhi. 89691 and 89692. January 25, 1957. A rubber heel for footwear; 90407. March 27, 1957. A rubber sole for footwear.

Tata Oil Mills Company Limited. The, of Bombay House, Bruce Street, Fort, Bombay-1. 91208. June 17, 1957. A cap for a bottle.

Timber Box Manufacturing Co., 6, Mangoe Lane, Calcutta-1. 89874 and 89875. February 12, 1957. A bobbin.

Valaguru Reddiar Guruswami Reddiar, Palam Rajakkat, Pahi, Dindigul P.O., Madurai. 92704. October 10, 1957. The Plough.

W. M. Still & Sons Ltd., of 29-31 Greville Street, London, E.C. 1., England. 90333. March 22, 1957. A container for liquid.

CLASS 4.—Articles composed wholly of glass, earthenware or porcelain, clay (burnt or baked), or cement or in which such materials predominate.

Ashoke Glass Works, of 9 Ezra Street, Calcutta. 89313. December 29, 1956. Jar.

Calcutta Chemical Co. Ltd., The, 35 Panditia Road, Calcutta-29. 89667. January 22, 1957. Glass phials; 90689. April 28, 1957.

Carlsbad Mineral Water Manufacturing Company Private Limited, 14, Watkins Road, Howrah. 91053. May 27, 1957. Glass bottles.

Chesebrough-pond's Inc., 485 Lexington Avenue, New York City, New York, U.S.A. 91190. June 14, 1957. A jar.

Chhaganlal Jatashankar Sheth and Mohanlal Dharamshi Tolia,, of Messrs. Rathod Trading Co., 21 Thola-Singam Street, Madras-1. 90002. February 21, 1957. Glass bottle.

Commonwealth Trust Limited, The, of Kozikhode-1, Malabar. 91075. May 28, 1957. Roofing tiles; 91484. July 3, 1957. Roofing tiles.

Delhi Food Products (Private) Ltd., Prithvi Mansion, Asaf Ali Road, New Delhi. 91714. July 26, 1957. A bottle.

Kishori Lal, C/o, Messrs. Kangra Cement Jolly Works, Hargo Lal Road, Ambala Cantt. 87394. August 9, 1956. Commode.

Kissan Products Private Ltd., of 32, Grant Road, Bangalore-1, Mysore. 91940. August 17, 1957. Bottles.

Krishan Lall Varma, C/o, K. L. Varma & Sons, Gandhi Road, Dehra Dun, U.P. 87317. August 2, 1956. Gents' urinal; 87318. August 2, 1956. Squatting urinal; 87319. August 2, 1956. Stall urinal; 87320. August, 2, 1956. Commode.

Linger-Werke GmbH, Dusseldrof Berliner Allee 57, Germany (West). 92022. August 21, 1957. Bottle.

M. M. Khambhatwala, Raipur 1134, Akasheth's Pole, Ahmedabad. 88762. November 17, 1956. Bottles.

Merco Traders and Sukkur Stores, Pan Mandi, Sadar Bazar, Delhi-6. 88763. November 17, 1956. Bottles.

Prakash Chandra Halder, No. 237 Rai Bahadur Road, Calcutta 33. 90194. March 9, 1957. Coke ovens.

Prakash Industries, Block No. 13, Quarter No. 32, Gobind Nagar, Kanpur, U.P. 89757. January 31, 1957. Bottle.

Pure Drinks (New Delhi) Private Ltd., of M. Block, Opp. Fire Brigade, Connaught Circus, New Delhi. 90406. March 26, 1957. A bottle.

Ram Chandra Govind Gupte, Sole proprietor, Uday Industries, 108, Mughat Street, Bombay-4. 91528. July 6, 1957. A glass bottle.

Ram Nath Arora, Block No. 4, Quarter No. 38/8, Gobind Nagar, Kanpur, (U.P.). 92342. September 12, 1957. Bottle.

Santosh Kumar Bhattacharjee, C/o, Biswavarati Chemical Works, 183 Upper Circular Road, Calcutta-4. 90804. May 6, 1957. Bottle.

Shree Saraswati Concrete Works, near Ubha Maruti Peth, Kolhapur. 89059. December 6, 1956. A sanitary gutter.

Tata Oil Mills Company Limited, The, of Bombay House, Bruce Street Fort, Bombay-1, 91206 and 91207. June 17, 1957. A bottle.

Walter Larisch, 6/B, Ezra Mansions, 10 Government Place, Calcutta-1. 88391. October 23, 1956. Bottle-cork heads.

William Grant & Sons Limited, of Glenfiddich Distillery, Dufftown, Scotland. 90648. (October 31, 1956). A bottle.

CLASS 5.—Articles composed wholly of paper, cardboard, millboard or straw-board (except articles included in class 2 and paper hanging), or in which such materials predominate.

Baidyanathdham Biri Co., P.O. Baidyanathdham, Deoghar, S.P., Bihar. 90015. February 21, 1957. Wrapper.

Baluja Footwear Co., Subash Market, Agra, 89647. January 21, 1957. Label; 90437. April 1, 1957. Label; 90438. April 1, 1957. Wrapper.

Basant Lal, Proprietor "Ghantewala Confectioners", Chandni Chowk, Delhi-6. 91572. July 13, 1957. Label.

Bidhu Bhusan Dev, Agartala, Jainagar, Tripura. 88714. November 16, 1956. Label.

Boggaram Venkateshaiah Aswathaiah, M/s. S. B. V. Aswathaiah & Sons and M/S. B. V. Aswathaiah & Brothers, C-35, P. V. Naik Galli, Nagarthpet, Bangalore-2. 89870. February 11, 1957. Label.

Calcutta Trading Corporation, P-7, Old China Bazar St., Calcutta-1. 88700. November 14, 1956. Cartoon.

Coimbatore Thayi Pankajam, Trading as Karthi Scented Products, No. 7 Umpherson Street, Madras-1. 89820. February 8, 1957. Wrapper.

Dalip Singh, Proprietor: Jagan Nath Dalip Singh, Masjid Tehwar Khan, Delhi. 89883. February 13, 1957. A label. 89884. February 13, 1957. A wrapper.

Deshbandhu Sewing Thread Co., of 12/C, Jadulall Mullick Road, Calcutta-6. 88903. November 28, 1956. Labels.

Eagle Playing Card Mfg. Co., Lal Kuan, Delhi. 87595 and 87597. August 22, 1956. Playing card cover; 88983 to 88989. December 3, 1956. Playing card cartons.

Eastern Paper Co., Private Ltd., The, of 44 Suttar Chawl, Bombay-2. 91097 to 91101. May 31, 1957. Wrapping paper.

Gurdial Singh, Prop. Gurdial Singh and Co., Hidi Market, Kot Atma Singh, Post Box 68, Amritsar. 90106. March 2, 1957. Label.

Handymen Industries (Private) Limited, 161 Mount Road, Madras-2. 90084. February 27, 1957. Label.

Hardial Singh, Raja Sansi Dist., Amritsar. 89681. January 24, 1957. Label.

Imperial Playing Cards Manufacturing Company, The, of Saddar Bazar, Delhi. 88083. September 24, 1956. Playing cards.

Ishar Singh, Prop. Ishar Singh and Sons, Bazar Gandanwala, Majith-Mandi, Amritsar (Punjab). 90818. May 7, 1957. Cartons.

(M/S.) K. S. Kalra and Sons, Majith-Mandi, Amritsar (Pb.). 90944. May 14, 1957. Card-board (cartons).

Kaji Vahab Shariff Rahim Shariff trading as Mysore Sultan Perfumery, Bangalore-2. 89573. January 14, 1957. Label.

Karim Bux, Bazada Road, Gaya, Bihar. 91486. July 4, 1957. Carton.

Kobli Chinnakan Nadar Sankaralinga Nadar Kasi Nadar. Kobli Chinnakan Nadar Sankaralinga Nadar Dnanurkon Nadar. Balavat Singh. Trading as Baby Aerated Water Works, 15 Singara Garden, 7th Lane, Washermanpet Madras-21. 89572. January 14, 1957. Label.

Madhaya Pai Krishna Pai Proprietor of M/S. Deepak Soap Industries, P.O. Snettallai, Multan Bazar, Kerala State. 92106 and 92107. August 23, 1957. Label.

Mahmud Hanif Khan, Madaripura, Madhya Pradesh. 89583. January 15, 1957. Label.

Makkuni Pachai Sankaralinga Nataraja Nadar. Makkuni Pachai Sankaralinga Balakrishna Nadar and Makkuni Pachai Sankaralinga Manicka Nadar, of Balakrishna Industrial Works, No. 5 Somu Chetty Street, 3rd Lane, Madras-13. 92516. September 25, 1957. Label.

Manik Lal Gupta, of M/S. Goila Chemical Works, Rangia, Dist. Kamrup. Assam. 88715. November 16, 1956. Carton.

Metro Playing Card Co., Byculla Club, Bellasis Road, Bombay-8. 90814. May 6, 1957. Playing card.

Mohammad Yahya, Mohammad Ilyas, Bhatti Street, Moradabad, U. P. 87935. September 13, 1956. Cartoon.

Mohita Traders, of 80/1 Pathuriaghata Street, Calcutta. 91052. May 27, 1957. Label.

Moolraj Shamdas Mehta, of M/S. Punjab Scot Gola Factory, of Barry Market, Saddar Bazar, Delhi. 90666. April 24, 1957. Cartoons.

N. C. Arya Snuff & Cigar Company, of 11, Davidson Street, Madras, and also of 92A Chittaranjan Avenue, Calcutta. 89907. February 15, 1957. Wrapper.

Nagarik Swasthya Sangh, 8, Sovaram Bysack Street, Calcutta-7. 88803. November 22, 1956. Badges.

Naraindass and Narasingdass of M/S. Naraindass Narasingdass, 147 Cotton Street, Calcutta-7. 91694 and 91695. July 25, 1957. Label; 91745. July 30, 1957. Label.

New Field Paper Industries, 48, 2nd Carpenter Street, Khetwadi Main Road, Bombay-4. 90422 to 90425. March 28, 1957. Writing and printing paper.

Nimco Soap & Chemical Industries, Asokwadi Road, Saraspur, Ahmedabad. 92108. August 28, 1957. Label.

Pabitra Hindu Oil Mills, and M/S. Kaluram Mahadeo Prasad of 1, Machua Bazar St., Calcutta-7. 91594. July 18, 1957. Label; 92227. September 6, 1957. Label.

Pyarelall Madanlall, 37, Canning Street, Calcutta-1. 90331 and 90332. March 22, 1957. Labels.

Ramachandra Setty Krishnamurthy, Everest Perfumery Works, Kolar P.O., Mysore State. 91162. June 11, 1957. The Carton.

Ramditta Mal Nangpaul, Prop. Nangpal Chemical Works, Shop No. 97, Aram Nagar, Qutab Road, Delhi. 91925. August 12, 1957. A carton.

Sajjadhusein Siddique, Proprietor, Johnson Laboratory, Room No. 5, Ground Floor, 35 Darvesh Mahal, Mohmedali Road, Bombay-3. 89158. December 13, 1956. A label.

Sarangapani Mudaliar Krishnasami Mudaliar, Prop. Akbar Soap Works, New Town, Vaniyambadi P.O. North Arcot, Dist., Madras. 88711. November 16, 1956. Label.

Seetharama Chettiar Govindarajulu, 307 Main Road, Shevapet Salem 2, S. India. 92134. August 30, 1957. Label.

Shaik Mohammed Ashraf, trading as Hind Rubber Works, of 15 Lower Chitpur Road, Calcutta-1. 89241. December 21, 1956. Labels.

Sham Sundar Khurana, Sham Sundar Mehndiratta and Jai Gopal, of Bhagwan Dass Sham Sunder, Thara Sahib, Amritsar. 90765. May 3, 1957. Blade Packets.

Sharda Paper-box Mfg. Co., 100 Byculla Station Road, Bombay-11, 92918. November 2, 1957. Playing cards.

Sripada Satyanarayana, Proprietor Srisris Perfumery Works, 21 Varada Muthiappan Street, Madras-1. 89963. February 20, 1957. Carton; 89964. February 20, 1957. Wrapper.

Subbiah Palanisamy Nadar (2) Vannia Samy Vannia Dhanushkodi Nadar, (3) Vannia Samy Vannia Chairmansamy Nadar and (4) Sankaralinga Periyakaruppa Arunachala Duraisamy Nadar, 10 Vengalakadai 2nd Lane, Madurai, Madras State. 88869. November 27, 1956. Labels.

Tiruvengadam Pillai Kusava Pillai, Tiruvengadam Pillai Varada Pillai, and Munuswami Mudaliar Anandham Mudaliar, Trading as Gouri Products, 19, Pedariar Koil Lane, Madras-1. 90031. February 28, 1957. Label.

Valayapatti Kuppuswami Chettiar Bharati Soap Works, Shevapet, Salem 2, S. India. 92062. August 24, 1957. Label.

Vashdermal Parsram, Proprietor Golden Chemical Laboratories, Bapu Balvant Building, Kelewadi, 212 Girgaum Road, Bombay-4. 91926. August 12, 1957. A label.

Vijay Bharat Thread Mills (India), Sadar Bazar, Delhi-6. 89366. January 3, 1957. A label.

Vijaya Pharmacy, The P. O. Box No. 31, Trichur (Kerala). 90940. May 14, 1957. Labels.

World Chemical Works Private Limited, Industrial Assurance Building, Churchgate, Bombay-1. 89810. February 6, 1957. Wrapper.

CLASS 6.—Articles composed wholly of leather or in which leather predominates, not included in other classes. . .

Lakshmiratan Cotton Mills Co. Ltd., of Behari Niwas, Kanpur, U.P. 90464. April 5, 1957. A loom picker.

Mela Ram & Sons, 4 Moti Sil St., 1st Floor, Calcutta-13. 92135 and 92136. August 30, 1957. Gloves.

CLASS 7.—Paper hangings.

NIL.

CLASS 8.—Carpets, rugs and floor coverings in all materials.

NIL.

CLASS 9.—Lace.

Hindustan Embroidery Mills Private Ltd., Chheharta (Amritsar). 88720. November 16, 1956. Embroidered Lace. 89766. February 1, 1957. Embroidered lace; 92101. August 28, 1957. Embroidered lace; 93117. November 18, 1957. Embroidered lace.

CLASS 10.—Boots, Shoes and the like footwear.

Bata Shoe Company Private Limited, 30 Theatre Road, Calcutta-16. 90085. February 27, 1957. Sole for footwear; 90529. April 9, 1957. A sole for footwear; 91655. July 22, 1957. A sole for footwear; 91756 and 91757. August 1, 1957. A sole and heel for footwear.

Corona Sahu Co., Private Limited, of 143 Mahatma Gandhi Road, Fort, Bombay-1. 89404. January 7, 1957. Foot-wear; 90329. March 22, 1957. Foot-wear.

CLASS 11.—*Millinery and Wearing apparel (except articles included in Class 10).*

Messrs. Mela Ram & Sons, 4 Moti Sil Street, 1st Floor, Calcutta-13. 90465. April 6, 1957. Gloves.

Rolex Hosiery Works, of Tanker Villa, Gowalia Tank Road, Bombay-26. 91156. June 11, 1957. Underwear.

CLASS 12.—*Goods not included in other classes.*

(M/S.) K. S. Kalra and Sons, Majith Mandi, Amritsar (Punjab). 90345. May 14, 1957. Bags made of cotton cloth (for rice).

Ram Kishore, of M/S. Nandkishore Ram Kishore, Janakganj, Lashkar, Gwalior, M.P. 91487. July 4, 1957. Soap cake.

Tharumal Dandumal, Vithalwadi Station Road, Ulhasnagar 3 (Kalyan), Bombay. 92112. August 29, 1957. Biscuits.

CLASS 13.—*Printed or woven designs on textile goods (other than checks or stripes).*

Ahmedabad Advance Mills Ltd., The, Bombay House, Bruce Street, Fort, Bombay. 90536 and 90537. April 15, 1957; 90670. April 24, 1957; 90776 and 90777. May 4, 1957; 90805. May 6, 1957; 91129 and 91130. June 4, 1957; 91403 to 91405. June 28, 1957; 91495 to 91498. July 5, 1957; 91753 to 91755. August 1, 1957; 91911 to 91913. August 9, 1957; 91934 and 91935. August 17, 1957; 92102 and 92103. August 28, 1957; 92196. September 4, 1957; 92344. September 12, 1957; 92515. September 25, 1957; 92552. September 28, 1957; 92761, 92762 and 92765. October 14, 1957; 92862 and 92863. October 25, 1957; 93032. November 12, 1957.

Ahmedabad New Textile Mills Co. Ltd., The, Outside Raipur Gate Ahmedabad. 88810. November 23, 1956; 88902. November 28, 1956; 89751. January 30, 1957; 90726. April 26, 1957; 91039. May 25, 1957; 91093. May 29, 1957; 92418 and 92419. September 17, 1957; 92494. September 25, 1957; 92913. November 1, 1957.

Arvind Mills Ltd., The, Naroda Road, Ahmedabad-2. 88999. December 4, 1956; 89181 and 89182. December 15, 1956; 89304 to 89306. December 27, 1956; 89531. January 11, 1957; 90019 and 90020. February 23, 1957; 90082. February 26, 1957; 90151. March 5, 1957; 90283. March 18, 1957; 90314. March 20, 1957; 90694 to 90698. April 25, 1957; 90985 and 90986. May 17, 1957; 91073 and 91074. May 28, 1957; 91157 and 91158. June 11, 1957; 91527. July 6, 1957; 91628 and 91629. July 20, 1957; 92190 to 92192. September 3, 1957; 92358 to 92360. September 13, 1957; 92463 to 92465. September 24, 1957.

Ashok Silk Mills, 144, Dharavi Road, Bombay-17. 90104 and 90105. March 2, 1957. 90826 to 90829. May 8, 1957; 91132. June 5, 1957.

Asoka Mills Ltd., The, P. B. No. 1050, Naroda Road, Ahmedabad-2. 90296. March 18, 1957; 90316. March 20, 1957; 90324. March 21, 1957; 90427. March 29, 1957; 90618 and 90619. April 20, 1957; 90766. May 3, 1957; 90821. May 7, 1957; 91118. June 3, 1957; 91128. June 4, 1957; 91558. July 11, 1957; 91570. July 13, 1957; 91878. August 6, 1957; 92124. August 29, 1957; 92226. September 6, 1957; 92604. October 5, 1957; 92868. October 28, 1957.

Bechardas Spg. & Wvg. Mills Co. Ltd., The, Raikhad, Ahmedabad-1. 89309. December 28, 1956; 89869. February 11, 1957; 90307. March 19, 1957.

Bharat Calico Printing Mills, G.T. Road, Putli-Ghar, Amritsar (Pb.). 91623. July 20, 1957.

Bharat Suryodaya Mills Co. Ltd., The, Post Maninagar, Ahmedabad-8. 89723 to 89725. January 28, 1957; 90592. April 16, 1957.

Bombay Calico Printing Mills, Chah Rajwala, G. T. Road, Amritsar. 88536. October 31, 1956 ; 89303. December 27, 1956 ; 89746. January 29, 1957 ; 89885 and 89886. February 13, 1957 ; 90403. March 26, 1957 ; 90426 and 90427. April 9, 1957 ; 90965. May 15, 1957 ; 91579. July 15, 1957 ; 92157. August 31, 1957 ; 92235 and 92236. September 7, 1957 ; 92270. September 10, 1957 ; 92357. September 13, 1957 ; 92384. September 16, 1957 ; 92544. September 27, 1957.

Bombay Dyeing & Mfg. Co. Ltd., The, Neville House, Ballard Estate Bombay-1. 91112. June 1, 1957 ; 92126 and 92127. August 29, 1957 ; 92409. September 16, 1957.

Bombay Union Dyeing Mills, The, 71 Government Gate Road, Parel, Bombay-12. 87329. August 3, 1956 ; 89199 to 89204. December 17, 1956 ; 89254. December 22, 1956 ; 89509. January 8, 1957 ; 89643 and 89644. January 21, 1957 ; 89696 and 89697. January 28, 1957 ; 89782 and 89783. February 2, 1957 ; 89809. February 6, 1957 ; 89844. February 9, 1957 ; 89905 and 89906. February 15, 1957 ; 90089. February 28, 1957 ; 90159 and 90160. March 7, 1957 ; 90180 and 90181. March 8, 1957 ; 90279, 90281 and 90282. March 18, 1957 ; 90330. March 22, 1957 ; 90470 to 90472. April 6, 1957 ; 90540. April 15, 1957 ; 90626. April 22, 1957 ; 90667 and 90668. April 24, 1957 ; 90786. May 4, 1957 ; 90904. May 11, 1957 ; 91094 to 91096. May 31, 1957 ; 91361 to 91363. June 25, 1957 ; 92451. September 20, 1957 ; 92690. October 10, 1957 ; 92963. November 8, 1957.

Calico Dyeing and Printing Mills Private Ltd., Industrial Estates, 41-E, Parel Chawl Road, Lalbaug. Bombay-12. 87225. July 26, 1956 ; 88933 to 88936. November 30, 1956 ; 89067 and 89068. December 7, 1956 ; 89171 to 89175. December 15, 1956 ; 89266 to 89269. December 26, 1956 ; 89315 to 89320. December 29, 1956 ; 89513 to 89517, 89519 and 89520. January 9, 1957 ; 89605 to 89610. January 17, 1957 ; 89674 to 89680. January 24, 1957 ; 89788 to 89793. February 4, 1957 ; 89913 to 89919. February 16, 1957 ; 89973 to 89979. February 20, 1957 ; 90004 to 90006. February 21, 1957 ; 90195 to 90198. March 9, 1957 ; 90334 to 90345. March 25, 1957 ; 90418 to 90421. March 28, 1957 ; 90441 to 90443. April 2, 1957 ; 90603 to 90605. April 18, 1957 ; 90628 and 90629. April 22, 1957 ; 90691 and 90692. April 25, 1957 ; 90806 to 90812. May 6, 1957 ; 90822 to 90825. May 8, 1957 ; 90999 to 91002. May 21, 1957 ; 90305 to 90310. June 24, 1957 ; 91333 to 91336. June 25, 1957 ; 91385 to 91388. June 26, 1957 ; 91406 to 91409. June 28, 1957 ; 91534 to 91536. July 8, 1957 ; 91684 and 91685. July 24, 1957 ; 92067 to 92071. August 26, 1957 ; 92146, 92148 to 92156. August 31, 1957 ; 92238 to 92243. September 9, 1957 ; 92469 to 92477. September 25, 1957 ; 92508, 92510, 92511 and 92514. September 25, 1957 ; 92729 to 92735. October 12, 1957.

Calico Processors Limited, Foras Road, Junction, Bombay-8. 89413 to 89445, 89450, 89451 and 89453 to 89457. January 7, 1957 ; 90905 to 90910, 90912 to 90914, 90917, 90918, 90920, 90921, 90923 to 90930, 90932 to 90936. May 11, 1957 ; 91038. May 25, 1957.

Central India Spg. Wvg. & Mfg. Co. Ltd., The, Bombay House, Bruce Street, Fort, Bombay. 89614 to 89618, 89620 to 89637. January 19, 1957 ; 89865. February 11, 1957 ; 90007 and 90009 to 90014. February 21, 1957 ; 90291 and 90295. March 18, 1957 ; 92432, 92433 and 92435 to 92443. September 18, 1957.

Century Spg. & Mfg. Co. Ltd., The, Industry House, 159, Churchgate Reclamation, Bombay-1. 88907 to 88913. November 29, 1956 ; 89057. December 6, 1956 ; 89161 to 89165. December 15, 1956 ; 89244 to 89248. December 22, 1956 ; 89559, 89561 to 89568. January 14, 1957 ; 89579 to 89581. January 14, 1957 ; 89659 to 89662, 89664 and 89665. January 22, 1957 ; 89693 and 89695. January 28, 1957 ; 89801 to 89807. February 6, 1957 ; 89877 to 89882. February 13, 1957 ; 89901 to 89904. February 15, 1957 ; 90051 to 90056. February 26, 1957 ; 90140 to 90146. March 5, 1957 ; 90325 to 90327.

March 21, 1957; 90486, 90488 and 90489. April 8, 1957; 90711 and 90714 to 90717. April 27, 1957; 91029 to 91034. May 23, 1957; 91050. May 27, 1957; 91233 to 91236. June 19, 1957; 91311 to 91317. June 24, 1957; 91400 to 91402. June 28, 1957; 91476 to 91481. July 3, 1957; 91499 and 91500. July 5, 1957; 91581 to 91588. July 16, 1957; 91672 to 91674. July 23, 1957; 91369. August 17, 1957; 91960 to 91967. August 21, 1957; 92036 to 92040. August 23, 1957; 92217, 92219, 92221 to 92224. September 6, 1957; 92255 to 92264. September 9, 1957; 92343. September 12, 1957; 92382. September 16, 1957; 92521 to 92528. September 26, 1957; 92559 to 92564 and 92566 to 92570. October 4, 1957; 92782 to 92785. October 16, 1957.

Cheluka Krishna Aiyer Srinivassiyer of Sree Parasakti & Co., 3 Lakshimipuram, 2nd Street, Madurai, Madras. 88454. October 25, 1956.

Commercial Ahmedabad Mills Co. Ltd., The, Asarva, Ahmedabad-11, 89912. February 16, 1957.

Corona Sahu Co., Private Limited, 143 Mahatma Gandhi Road, Fort, Bombay-1. 89111. December 10, 1956.

Crown Spg. & Mfg. Co. Ltd., Gokhale Road, Parel, Bombay-28. 88837. November 6, 1956; 88804 to 88806. November 22, 1956; 89176. December 15, 1956; 89375 and 89377. January 3, 1957; 89576. January 14, 1957; 89669 and 89670. January 22, 1957; 89671. January 24, 1957; 89808. February 6, 1957; 89931. February 18, 1957; 90103. March 2, 1957; 90158. March 7, 1957; 90620. April 2, 1957; 90653. April 23, 1957; 91102 to 91105. June 1, 1957; 91410. June 28, 1957; 91490 and 91491. July 5, 1957; 91676 to 91678. July 23, 1957; 91713. July 26, 1957; 91722 and 91723. July 29, 1957; 91876. August 5, 1957; 91944 and 91945. August 20, 1957; 92022. August 27, 1957; 92333. September 11, 1957; 92553 to 92555. October 4, 1957; 92687. October 10, 1957; 92755 and 92756. October 14, 1957; 92786. October 16, 1957; 92898 and 92899. October 21, 1957; 92832 to 92836. October 24, 1957.

Delhi Cloth & General Mills Co. Ltd., The, Bara Hindu Rao, P. B. No. 1029, Delhi. 88193, 88199 and 88207. October 6, 1956; 88965 to 88973 and 88975 to 88978. December 3, 1956; 89301 and 89302. December 27, 1956; 89525, 89539, 89541 to 89546, 89548 and 89549. January 11, 1957; 89846 to 89851 and 89853 to 89858. February 9, 1957; 89953 and 89955 to 89957. February 19, 1957; 90426. March 28, 1957; 90574 to 90531. April 15, 1957; 90736 to 90800 and 90803. May 4, 1957; 91237. June 20, 1957; 91492 to 91494. July 5, 1957; 91691 to 91693. July 25, 1957; 92060. November 7, 1957.

Dhanraj Mills (Private) Ltd., Sun Mills Road, Lower Parel, Bombay. 89006 to 89008. December 4, 1956; 89133 and 89134. December 11, 1956; 89314. December 29, 1956; 89510 to 89512. January 8, 1957; 89577 and 89578. January 14, 1957; 89908 to 89910. February 15, 1957; 89959 and 89961. February 19, 1957; 90093 to 90095. March 1, 1957; 90138. March 4, 1957; 90184 and 90185. March 8, 1957; 90318 to 90321. March 20, 1957; 90433 and 90434. March 29, 1957; 90490 to 90495. April 8, 1957; 90597 to 90601. April 16, 1957; 90649, 90650 and 90652. April 23, 1957; 90937. May 11, 1957; 91092. May 29, 1957; 91281 to 91283. June 21, 1957; 91366 to 91368. June 25, 1957; 91418 and 91419. July 1, 1957; 91529 to 91531. July 6, 1957; 91556 and 91557. July 10, 1957; 91592. July 16, 1957; 91687 to 91689. July 24, 1957; 91724 to 91727. July 29, 1957; 91917 to 91919. August 9, 1957; 92020 and 92021. August 21, 1957; 92161 and 92162. August 31, 1957; 92205 to 92207. September 4, 1957; 92347 to 92350. September 12, 1957; 92444 to 92446. September 18, 1957; 92654 to 92656 and 92658 to 92663. October 7, 1957; 92901 and 92202. October 31, 1957.

(M/S.) Doulatram Dyeing and Bleaching Mills, Upper Mahim, Mogul Lane, Bombay-16. 90710. April 27, 1957; 90841 and 90842. May 9, 1957.

Elphinstone Dye Works, Private Ltd., The, 400 Cadell Road, Bombay-28. 91109. June 1, 1957.

H. A. Shah & Co., of Vasant Vijay Mills, "Vasant Vijay", 470-71, Worli Road, Bombay-18. 88995 and 88996. December 4, 1956; 89270 and 89271.

December 26, 1956 ; 89324. December 31, 1956 ; 89779. February 2, 1957 ; 89873. February 12, 1957 ; 89932. February 19, 1957 ; 90076 and 90077. February 26, 1957 ; 90107. March 4, 1957 ; 90216. March 11, 1957 ; 90444. April 4, 1957 ; 90528. April 9, 1957 ; 90662 to 90665. April 24, 1957 ; 90820. May 7, 1957 ; 90957. May 15, 1957 ; 91117. June 3, 1957 ; 91287. June 22, 1957 ; 91482. July 3, 1957 ; 91631. July 22, 1957 ; 91670 and 91671. July 23, 1957 ; 91737. July 30, 1957 ; 91778. August 5, 1957 ; 91930 to 91932. August 14, 1957 ; 92058. August 24, 1957 ; 92125. August 29, 1957 ; 92132. August 30, 1957 ; 92215 and 92225. Sept. 6, 1957 ; 92234. Sept. 7, 1957 ; 92356. September 13, 1957 ; 92543. September 27, 1957 ; 92601 and 92602. October 5, 1957 ; 92819. October 24, 1957 ; 92888. October 30, 1957 ; 92935. November 5, 1957.

India United Mills Ltd., The, of Indu House, Dougall Road, Ballard Estate, Bombay-1. 89135 to 89137. December 11, 1956 ; 89205. December 17, 1956 ; 89369 to 89374. January 3, 1957 ; 89530. January 10, 1957 ; 89592. January 16, 1957 ; 89811. February 6, 1957 ; 89962. February 19, 1957 ; 90096. March 1, 1957 ; 90182. March 8, 1957 ; 90200 to 90203. March 11, 1957 ; 90496. April 8, 1957 ; 90977 and 90978. May 16, 1957 ; 91364 and 91365. June 25, 1957 ; 91686. July 24, 1957 ; 91728. July 29, 1957 ; 91761. August 2, 1957 ; 92021. August 21, 1957 ; 92164. August 31, 1957 ; 92351. September 28, 1957 ; 92711 to 92713. October 10, 1957 ; 92817. October 21, 1957.

Indian Textile Mills, 18, Mogul Lane, Bombay-16. 83014. September 18, 1956 ; 88930 and 88931. November 30, 1956 ; 90723 to 90725. April 23, 1957 ; 92160. August 31, 1957 ; 92452. September 20, 1957.

Jalan Dyeing & Bleaching Mills, 95, Ferguson Road, Lower Parel, Bombay-13. 89110. December 8, 1956 ; 89310. December 28, 1956 ; 89616. January 21, 1957 ; 90328. March 21, 1957 ; 90669 and 90682. April 24, 1957 ; 90846. May 10, 1957 ; 91072. May 28, 1957.

Jiyajeerao Cotton Mills Ltd., Birla Nagar, Gwalior. 89117 to 89126. December 11, 1956 ; 89227 to 89235. December 19, 1956. 89339 to 89351. January 1, 1957 ; 89650 to 89655. January 22, 1957 ; 90043 to 90049. February 26, 1957 ; 90343 to 90355. 90357 and 90359. May 11, 1957 ; 91289 to 91304. June 24, 1957 ; 91930 and 91994. August 21, 1957 ; 92619 to 92639 and 92641 to 92644. October 5, 1957.

Juggilal Kamlanpat Cotton Spg. & Wvg. Mills Co. Ltd., Kanpur, U.P. 89185 to 89191. December 15, 1956 ; 89682, 89683, 89686, 89687 and 89689. January 25, 1957 ; 90298 to 90301. March 18, 1957 ; 90359 to 90367. March 25, 1957 ; 91056 to 91063. May 27, 1957 ; 91159 to 91161. June 11, 1957 ; 91574 to 91578. July 13, 1957 ; 91909 and 91910. August 9, 1957 ; 92194 and 92195. September 3, 1957 ; 92228 and 92229. September 6, 1957 ; 92539 to 92542. September 27, 1957.

Kesoram Cotton Mills Ltd., 42 Garden Reach Road, Calcutta-24. 90727 to 90729. April 30, 1957 ; 91752. August 1, 1957 ; 92505 to 92507. September 25, 1957 ; 93165 and 93166. November 20, 1957.

Khatau Makanji Spg. & Wvg. Co. Ltd., The, 6, Ballard Pier, Laxmi Building, Fort, Bombay. 89000 to 89005. December 4, 1956 ; 89130 to 89132. December 11, 1956 ; 89178 to 89180. December 15, 1956 ; 89207 to 89209. December 17, 1956 ; 89331 to 89334. January 2, 1957 ; 89522 to 89525. January 9, 1957 ; 89526 to 89529. January 10, 1957 ; 89589 to 89591. January 16, 1957 ; 89753 to 89755. January 30, 1957 ; 89784 to 89786. February 4, 1957 ; 89839 to 89843. February 8, 1957 ; 89921 to 89930. February 18, 1957 ; 90022 to 90025. February 23, 1957 ; 90037. February 25, 1957 ; 90097 to 90099. March 1, 1957 ; 90153 to 90157. March 6, 1957 ; 90439 and 90440. April 2, 1957 ; 90457 and 90458, 90460 and 90461. April 5, 1957 ; 90637 to 90644, 90646 and 90647. April 22, 1957 ; 90939. May 14, 1957 ; 91003 to 91010. May 21, 1957 ; 91047 to 91049. May 27, 1957 ; 91411 to 91417. June 28, 1957 ; 91318 to 91323. June 24, 1957 ; 91355 and 91356. June 25, 1957 ; 91422 to 91426. July 1, 1957 ; 91611 to 91621. July 19, 1957 ; 91748 to 91751. July 31, 1957 ; 91907 and 91908. August 9, 1957 ; 91952 to 91959. August 20, 1957 ; 92138 to 92145. August 30, 1957 ; 92165 to 92177. September 3, 1957 ; 92249 to

92252. September 9, 1957; 92266 to 92268. September 10, 1957; 92401 to 92408. September 16, 1957; 92453 and 92454. September 20, 1957; 92646 to 92653. October 7, 1957; 92715 and 92717. October 11, 1957.

Khetani Textile Industries Private Ltd., 92355. September 12, 1957.

Krishna Calico Printing Co., Outside Ghee-Mandi, Amritsar. 89329. December 31, 1956; 90039. February 25, 1957; 91068 to 91070. May 28, 1957.

Kum Kum Silk Mills, 60, Chhipi Chawl, Bombay-2. 92818. October 24, 1957.

Lakshmiratan Cotton Mills Co. Ltd., Kalapi Road, Kanpur, U.P. 87975 to 87979. September 17, 1956.

Lal Woollen and Silk Mills, Putli Ghar, G. T. Road, Amritsar, Punjab. 90038. February 25, 1957.

Mafatlal Fine Spg. & Mfg. Co. Ltd., The, Navsari, Bombay. 87591 and 87592. August 22, 1956; 88740, 88741 and 88755. November 17, 1956; 89272 to 89279. December 26, 1956; 89307. December 27, 1956; 89698 to 89705. January 28, 1957; 90254 to 90278. March 18, 1957; 90466 to 90469. April 6, 1957; 90584 to 90590. April 16, 1957; 91170 to 91172. June 12, 1957; 91202 to 91205. June 17, 1957; 91253, 91262, 91263, 91268 and 91272. June 20, 1957; 91662 to 91669. July 23, 1957; 91923 and 91924. August 10, 1957; 91937 and 91938. August 17, 1957; 92421 and 92430. September 18, 1957; 92752 to 92754. October 14, 1957.

Manek & Co., 180, Lower Chitpore Road, Calcutta-1. 90752 and 90753, May 1, 1957.

Mansukh Dyeing & Printing Mills, Suryodaya Mills Compound, Tardeo, Bombay-7. 89249 to 89253. December 22, 1956; 89587 and 89588. January 16, 1957.

Modi Spg. & Wvg. Mills Co. Ltd., The, Modinagar, Meerut, U.P. 90177 to 90179. March 8, 1957; 90582 and 90583. April 15, 1957; 90847. May 10, 1957; 91389 and 91390. June 26, 1957; 92230 and 92232. September 6, 1957; 92519. September 26, 1957.

New Commercial Mills Co. Ltd., The, Naroda Road, P. B. No. 1060, Ahmedabad. 88878 to 88889. November 27, 1956; 89061 to 89066. December 7, 1956; 89192 to 89198. December 17, 1956; 89260 to 89265 and 89282 to 89284. December 26, 1956; 89471 to 89477. January 8, 1957; 89593 to 89599. January 17, 1957; 89640 to 89642. January 21, 1957; 89949 to 89951. February 19, 1957; 90078 to 90081. February 26, 1957; 90285 to 90289. March 18, 1957; 90408 to 90410. March 27, 1957; 90655 to 90661. April 24, 1957; 90958 to 90964. May 15, 1957; 91076 to 91087. May 29, 1957; 91338 to 91354. June 25, 1957; 92000, 92002 to 92019. August 21, 1957.

New Era Fabrics Private Ltd., Tulsi Pipe Road, Bombay-16. 89532 to 89534. January 11, 1957; 89717 to 89720 and 89722. January 28, 1957; 89758 and 89761. January 31, 1957; 90355 to 90358. March 25, 1957; 90621 to 90625. April 20, 1957; 90770 to 90772, and 90774. May 3, 1957; 90988 to 90991. May 18, 1957; 91209 to 91211. June 17, 1957.

New India Rayon Mills Co. Private Ltd., The, Lower Parel, Bombay-13. 92889. October 31, 1957; 92934. November 5, 1957.

New Mahalaxmi Silk Mills Private Ltd., The, Lower Parel, Bombay-13. 89872. February 12, 1957.

New National Mills Limited, The, Rakhial Road, Ahmedabad-10. 88942 to 88945 and 88947 to 88956. December 3, 1956; 90126 to 90136. March 4, 1957; 90147 to 90150. March 5, 1957; 91238 to 91251. June 20, 1957; 91439 to 91450. July 2, 1957; 91762 to 91773. August 3, 1957; 92079 to 92086. August 27, 1957; 92178 to 92184 and 92186 to 92189. September 3, 1957; 92571 to 92588. October 4, 1957.

New Shorrocks Spg. & Mfg. Co. Ltd., The, Nadiad, District Kaira, Bombay, 89335 and 89336. January 2, 1957; 88997 and 88998. December 4, 1956;

89183. December 15, 1956 ; 89715. January 28, 1957 ; 89833. February 8, 1957 ; 89933. February 19, 1957 ; 90021. February 23, 1957 ; 90083. February 27, 1957 ; 90137. March 4, 1957 ; 90233 and 90234. March 13, 1957 ; 90353. March 25, 1957 ; 90402. March 26, 1957 ; 90454. April 4, 1957 ; 90483. April 6, 1957 ; 90538. April 15, 1957 ; 91023 and 91024. May 23, 1957 ; 91114 and 91115 ; June 3, 1957 ; 91173 and 91174. June 14, 1957 ; 91337. June 25, 1957 ; 91632 and 91633. July 22, 1957 ; 91744. July 30, 1957 ; 91760. August 2, 1957 ; 92078 and 92089. August 27, 1957 ; 92209 and 92210. September 5, 1957 ; 92683 and 92684. October 10, 1957 ; 92750 and 92751. October 14, 1957 ; 92779 and 92780. October 15, 1957 ; 92867. October 26, 1957.

New Vinod Silk Mills Private Ltd., The, Kasturchand Mills Estate, Dadar, Bombay-28. 89009 to 89014, 89016 to 89043, 89045 to 89052, 89054 and 89056. December 5, 1956.

Nutan Mills Limited, The, Via Vora's Roja, Anil Road, Ahmedabad-2. 91051. May 27, 1957 ; 91420. July 1, 1957.

Panalal Silk Mills Private Ltd., No. 1, Atlas Mills Compound, Reay Road, Mazagaon, Bombay-10, 89400. January 4, 1957 ; 90215. March 11, 1957 ; 90303 to 90306. March 19, 1957 ; 90719. April 27, 1957 ; 90780 to 90785. May 4, 1957 ; 90816 and 90817. May 7, 1957 ; 91900 to 91903. August 8, 1957 ; 91914 to 91916. August 9, 1957.

Pesooram Hotchand, 149/51, Narain Nivas, Dady Seth Agyari Lane, Bombay-2. 89409. January 7, 1957.

Phoenix Mills Ltd., The, Imperial Bank Building, Bank Street, Fort, Bombay. 88870 to 88877. November 27, 1956 ; 89458 to 89470. January 8, 1957 ; 89727 to 89735. January 29, 1957 ; 89965 to 89972. February 20, 1957 ; 90322 and 90323. March 21, 1957 ; 90731 to 90750. May 1, 1957 ; 91011 to 91020. May 21, 1957 ; 91327 to 91332. June 25, 1957 ; 91468 to 91475. July 3, 1957 ; 91599 to 91610. July 19, 1957 ; 91656 to 91661. July 23, 1957 ; 91969 to 91979. August 21, 1957 ; 92094 to 92100. August 28, 1957 ; 92412 to 92416. September 17, 1957 ; 92478 to 92488. September 25, 1957 ; 93136 to 93143. November 19, 1957.

Pulgaon Cotton Mills Ltd., Pulgaon, Bombay State. 91110 and 91111. June 1, 1957.

Raja Bahadur Motilal Poona Mills Limited, The, Hamam House, Hamam Street, Fort, Bombay-1. 91391 and 91392. June 27, 1957.

Ramniklal & Bros., Ghadial Gali Mulji, Mulji Jetha Market, Bombay-2. 90996. May 20, 1957.

Rup Lal Seth, Proprietor, M/S. Seth Calico Printing Mills, I/S Mohan Singh Gate, Opposite M. B. Girls High School, Amritsar, Punjab. 89058. December 6, 1956.

S. M. Tavde, Partner of Shree Samartha Textile Industries, Fergusson Road, Lower Parel, Bombay 13. 89521. January 9, 1957.

Sarangpur Cotton Mfg. Co. Ltd., The, Outside Raipur Gate, P. B. No. 19, Ahmedabad. 88864. November 27, 1956 ; 89140 to 89157. December 13, 1956 ; 89211 to 89214. December 18, 1956 ; 89387 to 89398. January 4, 1957 ; 89600 to 89604. January 17, 1957 ; 89706 to 89714. January 28, 1957 ; 89937 to 89947. February 19, 1957 ; 90376 to 90381, 90383 to 90393. March 26, 1957 ; 90411 to 90417. March 27, 1957 ; 90862 to 90902. May 11, 1957 ; 91789 to 91875. August 5, 1957 ; 92274 to 92285 and 92287 to 92332. September 11, 1957 ; 92461. September 21, 1957 ; 92489 and 92490. September 25, 1957.

Seth Calico Printing Mills, I/S Mohan Singh Gate, Opp. M.B. Girls High School, Amritsar, Punjab. 89236 and 89237. December 20, 1956 ; 90775. May 3, 1957 ; 90992. May 18, 1957 ; 92837. October 24, 1957.

Shree Madhusudan Mills, Globe Mill Passage, Delisle Road, Bombay-13. 91526. July 6, 1957 ; 91559 to 91586. July 12, 1957.

Shree Niwas Cotton Mills Ltd., The, Delisle Road, Bombay-13. 88623 to 88634. November 6, 1956 ; 88914 to 88929. November 30, 1956 ; 89285 to 89300.

December 27, 1956 ; 98378 to 98386. January 4, 1957 ; 89498 to 89508. January 8, 1957 ; 89737 to 89741 and 89744. January 29, 1957 ; 89888 to 89900. February 15, 1957 ; 90026 to 90035. February 25, 1957 ; 90187 to 90192. March 5, 1957 ; 90240 to 90252. March 15, 1957 ; 90473 to 90482. April 6, 1957 ; 90966 to 90975. May 15, 1957 ; 91370 to 91384. June 26, 1957 ; 91452 to 91466. July 3, 1957 ; 91514 to 91517 and 91519 to 91525. July 6, 1957 ; 91634 to 91643 and 91645. July 22, 1957 ; 91699 to 91708 and 91710. July 26, 1957 ; 91729 to 91736. July 30, 1957 ; 92367 to 92378. September 14, 1957 ; 92665 to 92667, 92669 to 92676, 92691 to 92695 and 92697 to 92702. October 10, 1957 ; 92736 to 92749. October 12, 1957.

Shree Ram Mills Limited, of Fergusson Road, Parel, Bombay-13. 89070 to 89090 and 89092 to 89109. December 7, 1956 ; 89980 to 89983 and 89985 to 89999. February 20, 1957 ; 90699 to 90708. April 25, 1957 ; 91137, 91139 to 91150 and 91152 to 91155. June 8, 1957.

Shree Shubhlaxmi Mills Ltd., Station Road, Cambay. 88992 to 88994. December 4, 1956 ; 89215 to 89222. December 18, 1956 ; 90057 to 90068. February 26, 1957 ; 90120 to 90125. March 4, 1957 ; 90346 to 90352. March 25, 1957 ; 90608 to 90617. April 20, 1957 ; 90787 to 90791. May 4, 1957 ; 91040 to 91044. May 27, 1957 ; 91217 to 91225. June 18, 1957 ; 91427 to 91438. July 2, 1957 ; 91780 to 91788. August 5, 1957 ; 92041 to 92056. August 23, 1957 ; 92391 to 92400. September 16, 1957 ; 92608 to 92618, October 5, 1957.

Shri Tulsī Ram Pahwa, Prop. Panna Calico Printing Mills, R. B. Gagarmal Road, Amritsar, (Punjab). 92265. September 9, 1957.

Silver Cotton Mills Co. Ltd., The, Near Jaganath Mahadev, Kankaria Road, P. B. No. 27, Ahmedabad. 88789. November 20, 1956 ; 88840 to 88843. November 24, 1956 ; 89113 to 89116. December 11, 1956 ; 89166 to 89170. December 15, 1956 ; 89238. December 20, 1956 ; 89357 to 89365, 89367 and 89368. January 3, 1957 ; 89402 and 89403. January 5, 1957 ; 89648 and 89649. January 22, 1957 ; 89796 to 89800. February 6, 1957 ; 89813 and 89814. February 7, 1957 ; 89934 to 89936. February 19, 1957 ; 90069 to 90075. February 26, 1957 ; 90217 to 90223. March 12, 1957 ; 90302. March 19, 1957 ; 90368 to 90375. March 26, 1957 ; 90450 to 90453. April 4, 1957 ; 90533. April 4, 1957 ; 90594 to 90596. April 16, 1957 ; 90758 to 90764. May 3, 1957 ; 91025 to 91027. May 23, 1957 ; 91088 to 91091. May 29, 1957 ; 91166 to 91169. June 12, 1957 ; 91357 to 91360. June 25, 1957 ; 91539 to 91541. July 10, 1957 ; 91715 to 91718. July 27, 1957 ; 91774 to 91777. August 5, 1957 ; 91920 to 91922. August 10, 1957 ; 91995 to 91997. August 21, 1957 ; 92087 and 92088. August 27, 1957 ; 92244 to 92248. September 9, 1957 ; 92681 and 92682. October 10, 1957.

Standard Mills Co. Ltd., The, Mafatlal House, Back Bay Reclamation, Bombay-1. 90108, 90109, 90111 to 90114, 90116 and 90117. March 4, 1957 ; 90224 and 90225. March 12, 1957 ; 90718. April 27, 1957.

Svadeshi Mills Co. Ltd., The, Bombay House, Bruce Street, Fort, Bombay. 89815 to 89818. February 7, 1957 ; 89822 to 89824. February 8, 1957 ; 90161, 90164 to 90168 and 90170 to 90176. March 7, 1957 ; 90204 to 90212. March 11, 1957 ; 90499 to 90507, 90509 to 90512, 90514 to 90520 and 90522 to 90523. April 9, 1957 ; 90541 to 90546, 90548, 90552, 90556, 90557, 90559 to 90571. April 15, 1957 ; 90671 to 90681. April 24, 1957 ; 91177, 91178, 91180 to 91182 and 91184 to 91189. June 4, 1957 ; 91542 to 91555. July 10, 1957 ; 91887 to 91894. August 6, 1957 ; 92113 to 92115 and 92117 to 92123. August 29, 1957 ; 92838 to 92857. October 25, 1957.

Swadeshi Cotton Mills Company Limited, The, Kanpur, U.P. 89770 and 89772 to 89773. February 2, 1957 ; 90311. March 19, 1957 ; 90946 to 90952. May 14, 1957 ; 91896 to 91899. August 6, 1957 ; 92378. October 28, 1957.

Tata Mills Ltd., The, Bombay House, Bruce Street, Fort, Bombay. 88957. December 3, 1956 ; 89239 and 89240. December 21, 1956 ; 89321 to 89323. December 29, 1956 ; 89551 to 89555. January 11, 1957 ; 89749 and 89750.

January 30, 1957; 89764 and 89765. February 1, 1957; 89836. February 8, 1957; 90003. February 21, 1957; 90152. March 6, 1957; 90213 and 90214. March 11, 1957; 90485. April 8, 1957; 90720 and 90721. April 29, 1957; 90730. May 1, 1957; 90903. May 11, 1957; 90941 to 90943. May 14, 1957; 91192 and 91194 to 91201. June 17, 1957; 91502 to 91506, 91508, 91509, 91511 and 91512. July 5, 1957; 91589 and 91590. July 16, 1957; 91624, 91625 and 91627. July 20, 1957; 91679 to 91683. July 24, 1957; 91742 and 91743. July 30, 1957; 91884 to 91886. August 6, 1957; 91936. August 17, 1957; 92059 to 92061. August 24, 1957; 92104 and 92105. August 28, 1957; 92334, 92335 and 92338 to 92340. September 11, 1957; 92385 to 92387 and 92390. September 16, 1957; 92605 to 92607. October 5, 1957; 92805. October 18, 1957; 92917. November 2, 1957; 92967 and 92968. November 8, 1957; 92979 and 92980. November 9, 1957.

Usha Dyeing Bleaching & Printing Mills Ltd., Agra Road, Vikhroli, Bombay. 92128 to 92131. August 29, 1957.

Vashno Calico Dyeing and Printing Mills, The, Near State Bank of India, Amritsar. 90994 and 90995. May 20, 1957.

Victoria Mills Ltd., The, Delisle Road, Parel, Bombay-13. 88789. November 21, 1956; 89112. December 11, 1956; 89225 and 89226. December 19, 1956; 89256 to 89259. December 26, 1956; 89352 to 89356. January 3, 1957; 89399. January 4, 1957; 89638. January 19, 1957; 89656 and 89657. January 22, 1957; 89745. January 29, 1957; 89780 and 89781. February 2, 1957; 89948. February 19, 1957; 90016. February 22, 1957; 90050. February 26, 1957; 90193. March 9, 1957; 90284. March 18, 1957; 90445. April 4, 1957; 90534 and 90535. April 12, 1957; 90591. April 16, 1957; 90607. April 18, 1957; 90654. April 24, 1957; 90709. April 27, 1957; 90778 and 90779. May 4, 1957; 90819. May 7, 1957; 91028. May 23, 1957; 91164. June 11, 1957; 91284 to 91286 and 91288. June 22, 1957; 91393 to 91395. June 28, 1957; 91467 and 91483. July 3, 1957; 91537. July 8, 1957; 91597 and 91598. July 19, 1957; 91698. July 26, 1957; 91720. July 29, 1957; 91779. August 5, 1957; 91904 and 91905. August 8, 1957; 91998 and 91999. August 21, 1957; 92065, 92066, 92074 to 92076. August 26, 1957; 92211 to 92213. September 5, 1957; 92233. September 7, 1957; 92361 to 92366. September 14, 1957; 92492 and 92493. September 25, 1957; 92677 to 92679. October 10, 1957; 92724 to 92728. October 12, 1957; 92830 and 92831. October 24, 1957; 93020 and 93021. November 12, 1957.

Vijay Dyeing and Printing Mills, Atlas Mills Compound, Reay Road, Bombay-10. 89281. December 26, 1956.

Vijay Silk Prints Private Ltd., 40, Central Building, Bomanji Master Road, Bombay. 90754 to 90757. May 1, 1957; 90767 to 90769. May 3, 1957; 90793 to 90795. May 4, 1957; 90833 to 90840. May 9, 1957; 90955 and 90956. May 14, 1957; 90997 and 90998. May 20, 1957; 92026. August 23, 1957.

CLASS 14.—*Printed or woven designs on textile goods being checks or stripes.*

Ahmedabad Advance Mills Ltd., The Bombay House, Bruce Street, Fort, Bombay, 92978. November 9, 1957.

Calico Dyeing & Printing Mills Private Ltd., Industrial Estates, 41-E, Parel Chawl Road, Lalbaug, Bombay-12. 89518. January 9, 1957.

Calico Processors Limited, Foras Road Junction, Bombay-8. 89425, 89446 to 89449 and 89452. January 7, 1957; 90911, 90916, 90919, 90922 and 90931. May 11, 1957.

Central India Spg. Wvg. & Mfg. Co. Ltd., The, Bombay House, Bruce Street, Fort, Bombay. 88488. October 27, 1956; 89864. February 11, 1957; 90008. February 21, 1957; 90293 and 90294. March 18, 1957; 92434. September 18, 1957.

Century Spg. & Mfg. Co. Ltd., The, Industry House, 159, Churchgate Reclamation, Bombay-1. 88611. November 6, 1956; 88815. November 23, 1956; 89243. December 22, 1956; 89558 and 89560. January 14, 1957; 89658 and 89663.

January 23, 1957; 90487. April 8, 1957; 90712 and 90713. April 27, 1957; 90860 and 90361. May 11, 1957; 91230 to 91232. June 19, 1957; 91501. July 5, 1957; 92216 and 92218. September 6, 1957.

Ceylon House Textiles, Oyitty Road, Kozhikode. 88963 and 88964. December 3, 1956.

Crown Spg. & Mfg. Co. Ltd., Gokhale Road, Parel, Bombay-28. 82444. October 24, 1956; 88636. November 6, 1956; 89177. December 15, 1956; 89376. January 3, 1957.

Delhi Cloth & General Mills Co. Ltd., The, Bara Hindu Rao, Post Box No. 1039, Delhi. 88209. October 6, 1956; 89952 and 89954. February 19, 1957; 90801. May 4, 1957.

Dhanraj Mills (Private) Ltd., Sun Mill Road, Lower Parel, Bombay, India. 89958 and 89960. February 19, 1957; 90139. March 4, 1957; 90651. April 23, 1957; 92110 and 92111. August 28, 1957.

H. A. Shah & Co., of Vasant Vijay Mills, "Vasant Vijay", 470-71, Worli Road, Bombay-18. 89586. January 16, 1957; 92093. August 28, 1957.

India United Mills Ltd., The, Indu House, Dougall Road, Ballard Estate, Bombay-1. 90183. March 8, 1957; 92518. September 25, 1957; 92793 and 92794. October 16, 1957.

Juggilal Kamapat Cotton Spg. & Wvg. Mills Co. Ltd., Kanpur, U.P. 91066 and 91067. May 27, 1957.

Khatau Makanji Spg. & Wvg. Co. Ltd., The, 6, Ballard Pier, Lekmi Building, Fort, Bombay. 90636. April 22, 1957; 90938. May 14, 1957; 91324. June 24, 1957.

Mafatlal Fine Spg. & Mfg. Co. Ltd., The, Navsari, Bombay. 88758 and 88759. November 17, 1956; 89280. December 26, 1956.

Manek & Co., 180, Lower Chitpur Road, Calcutta-1. 90751. May 1, 1957.

New India Rayon Mills Co. Private Ltd., The, Post Box No. 6302, Lower Parel, Bombay-13. 92345 and 92346. September 12, 1957.

Phoenix Mills Ltd., The, Imperial Bank Building, Bank Street, Fort, Bombay-1. 92776 and 92778. October 15, 1957.

Sarangpur Cotton Mfg. Co. Ltd., The, Outside Raipur Gate, P. B. No. 19, Ahmedabad. 88865. November 27, 1956; 90382. March 26, 1957.

Shree Niwas Cotton Mills Ltd., The, Delisle Road, Bombay-13. 88621 and 88622. November 6, 1956; 91709. July 26, 1957.

Sri Krishna Spg. & Wvg. Mills (Private) Ltd., Chickpet, Post Box No. 524, Bangalore-2. 90630 to 90635. April 22, 1957; 91580. July 15, 1957; 92383. September 16, 1957.

Standard Mills Co. Ltd., The, Mafatlal House, Back Bay Reclamation, Bombay-1. 88722, 88723, 88733 and 88736. November 17, 1956; 91252, 91254 to 91261, 91264 to 91267, 91269 to 91271, 91273 to 91279. June 20, 1957; 90110 and 90115. March 4, 1957.

Svadeshi Mills Co. Ltd., The, Bombay House, Bruce Street, Fort, Bombay. 89769 and 89771. February 2, 1957; 89822 and 89829. February 8, 1957; 90498. April 9, 1957; 90553. April 15, 1957; 91176. June 14, 1957; 92116. August 29, 1957.

Swadeshi Cotton Mills Company Limited, The, Kanpur, U.P. 91929. August 13, 1957; 92879 and 92881. October 28, 1957.

Tata Mills Ltd., The, Bombay House, Bruce Street, Fort, Bombay. 88799. November 21, 1956; 89550. January 11, 1957; 90315. March 20, 1957; 91626, July 20, 1957; 92336 and 92337. September 11, 1957; 92806. October 18, 1957; 92969 and 92970. November 8, 1957.

Victoria Mills Limited, The, Delisle Road, Parel, Bombay-13. 88674. November 13, 1956; 90447. April 4, 1957; 91697. July 26, 1957.

Webbing & Belting Factory Pte. Ltd., The, of Hasan Building, Nicholson Road, Delhi-6. 91119 and 91120. June 3, 1957.

PART VI

Special Proceedings (Designs), 1957.

A.—Extension of Copyright in designs under Sections 47(2) and 47(3) of the Indian Patents and Designs Act, 1911.

Design No.	Class No.	Date upto which the copyright has been extended.
70047 and 70048	13	28th December 1961.
70207	13	2nd May 1962.
70208	14	2nd May 1962.
70240	3	26th May 1962.
70243 to 70247	13	30th May 1962.
70248	4	6th June 1962.
70312 to 70316	13	30th August 1962.
70343 and 70344	13	4th October 1962.
70347 and 70348	3	10th October 1962.
70349	13	16th October 1962.
70401	3	8th December 1962.
70410	1	17th December 1962.
70413 and 70414	13	18th December 1962.
70678	3	15th March 1963.
70821	3	19th October 1963.
70958	6	4th January 1964.
73137	5	15th January 1966.
73873, 73876 and 73878	13	16th November 1961.
73921	1	4th December 1966.
73924	4	5th December 1961.
73999 to 74002	1	29th December 1961.
74104	5	30th January 1962.
74179	4	23rd February 1962.
74184 to 74186	13	3rd March 1962.
74300 to 74339	13	25th April 1962.
74340 to 74344	14	25th April 1962.
74345 to 74352	13	25th April 1962.
74353	14	25th April 1962.
74372	13	3rd May 1962.
74414	3	28th February 1962.

Design No.	Class No.	Date upto which the copyright has been extended.
74434	1	21st November 1961.
74437	13	22nd May 1962.
74455	12	30th May 1962.
74456	1	30th May 1962.
74521	4	25th June 1962.
74562	1	9th January 1962.
74564	1	3rd July 1962.
74645	5	22nd July 1962.
74654 to 74658 and 74660 to 74698	13	24th July 1962.
74702	4	26th July 1962.
74798	1	16th May 1962.
74807	1	26th August 1962.
74813	1	27th August 1962.
74817 and 74818	5	28th August 1962.
74820 and 74821	13	28th August 1962.
74849	1	9th September 1967.
74871 to 74874	13	13th September 1962.
74883 and 74884	1	17th September 1962.
74885 to 74898	13	17th September 1962.
74960 and 74961	3	10th July 1962.
74966	1	10th October 1962.
75048	4	6th November 1962.
75077	13	18th September 1962.
75086	1	17th November 1962.
75096	5	20th November 1962.
75120	1	25th November 1962.
75143 to 75148	13	29th November 1962.
75178	4	5th December 1962.
75180	3	11th October 1962.
75187	12	11th February 1962.
75428	1	11th November 1962.
75500	12	9th February 1963.
75525 and 75526	4	11th February 1962.
75899	1	20th April 1963.
76222	4	19th December 1962.
76261	5	22nd June 1963.
76477	5	7th August 1963.
77692	3	3rd November 1963.
80010	4	29th September 1964.
91035	1	23rd May 1972.
91538	1	10th July 1972.

B.—Registration of Assignments, Licenses, etc.

84271	} Chander Bhan Sant Ram.
84272	.	.	.	.	.	.	.
84273	.	.	.	.	.	.	.
84274	.	.	.	.	.	.	.
84275	.	.	.	.	.	.	.
75428	Isaac Jackson & Sons (Fasteners) Limited.

C.—Cancellation of the Registration of Designs.

Design No.	Name of the Registered Proprietor.	Result.
79467	Abul Khare.	Pending.
79468	Abul Khare.	Pending.
79518	The Asarwa Mills Limited.	The application for cancellation of the registration of the design has been withdrawn.
82847	The New Commercial Mills Co. Ltd.	The registration of the design has been cancelled.
83472	Beharilal Rattanchand	1st cancellation The application for 2nd cancellation cancellation of the registration of the design has been disallowed.
83712	S. C. Venkata Ramaiah Setty.	The application for cancellation of the registration of the design has been disallowed.
83713	B. V. Aswathaiah & Sons.	The registration of the design has been cancelled.
84060	Hiralal Maganlal Kansara.	The application for cancellation of the registration of the design has been withdrawn.
84381	Rosehall & Company.	Pending.
85443	The New Mahalaxmi Silk Mills Private Ltd.	The registration of the design has been cancelled.
85512	Abdul Majid.	Pending.
85995	Ahmad Hussain & Co.	Pending.
87933	Asgar Ali, Zahur Ahmed & Majur Ahmed.	Pending.
88135	The Bombay Union Dyeing Mills.	The registration of the design has been cancelled.
88441	Jalan Dyeing & Bleaching Mills.	The registration of the design has been cancelled.
88541	Tek Sing.	Pending.
90328	Jalan Dyeing and Bleaching Mills.	Pending.
92158	Hind Plastic Works Private Limited.	Pending.

PART VII

Name Index (Patents), 1956

Name Index of applicants for Patents in connection with applications filed during 1956.

Name	Register Numbers.
A	
Abbott Laboratories	58276
A. B. C. Coupler & Engineering Co. Ltd.	58117
Abildgaard-Edling, K.	56551, 57031, 57749.
Abildgaard, K.	58358, 58593.
A. Borland Limited	57158
Abraham, K. C.	56274
Ab. Tudor	56472, 58432.
Accumulatoron-Fabrik Aktiengesellschaft	58087
Acrow (Engineers) Ltd.	57339, 57748, 58125, 58458, 58649.
Acton Bolt Limited	58290
Adamant Engineering Co. Limited	58225
A. E. I. John Thompson Nuclear Energy Co. Ltd.	58419, 58420, 58421.
Aeroquip Corporation	58194
A. E. Staley Manufacturing Co.	58376
Agarwal, C.	58086
Agricola Reg. Trust	56417
A. H. Hunt (Capacitors) Ltd.	56909, 57201, 57214, 58021, 58081, 58409, 58410, 58411, 58629.
Ahuja, D. P.	57357, 58237.
Aiyar, R. S.	56531
Aiyar, S. N.	56531
Ajmani, B. B.	57658
Ajmera, S. A.	59085
Ajmera, V. C.	59085
Akasaka, I.	59190
Aktiebolaget, A. Ekstroms Maskinaffar	58954
Aktiebolaget Atomenergi	59117
Aktiebolaget Bofors	57218, 57219, 59258, 59259, 59260.
Aktiebolaget Hassle	59118
Aktiebolaget Nordstrandsventilen	57692
Aktiebolaget Pharmacia	56575
Aktiebolaget Separator	56876

Name.	Register Numbers.
<i>A—contd.</i>	
Aktiebolaget Svenska Aluminium kompaniet	58657
Aktiebolaget Tryckror	57481
Aktiengesellschaft Fur Unternehmungen Der Eisen-Und Stahlindustrie	58791
Albert David Ltd.	58506, 59097, 59251.
Albion Plywood Ltd., The	56631
Albrecht, R.	59160
Al'Edroos, S. Z.	59193
Alembic Chemical Works Co. Ltd.	56602, 58121.
Algemene Kunstzijde Unie N. V.	58492
Ali Khan, A. M. N.	56816
Allen & Hanburys Limited	56585
Allimann, G.	57762
Alric, G. C. A.	56939
Altet, V. R.	58356
Aluminium Laboratories Ltd.	59084
Alweg-Forschung Gesellschaft Mit Beschränkter Haftung	56769, 58057.
Amalgamated Line Stone Corporation Limited	56652
Aman, J. J.	57657
Amedee, L. R.	58394
American Chemical Paint Company	56306, 58326.
American Cyanamid Company	56336, 56637, 56745, 56792, 56865, 57098, 57142, 58512, 58645, 59045, 59046.
American Home Products Corporation	57681, 57796, 58039, 59166
American Lead Pencil Co.	57321
American-Marietta Co.	59182
American Screw Company	56680, 56681.
American Steel Foundries	57270, 57624.
American Window Glass Co.	57708
Ames Irrigation Pty. Ltd.	57127, 57310, 57756, 57757, 57758, 57759.
A. M. I. International S. A.	56784
Amiragoff, A. J. B. S.	58655
Ammal, A.	57643
Amritlal, P. R. R. (Mrs.)	56832
Amritlal, R.	56832
Anciens Etablissements P. Destompes & Cie	58636
Andreas, E.	56802
Andrew Smith Harkness Ltd.	57891
Angus Company Limited, The	56308, 56354.
Anna Saheb	58062
Anzin Limited	58285

Name	Register Numbers.
A—concl'd.	
A. P. V. Company Limited, The	57064
A. P. V. Engineering Co. Private Ltd., The	57768
Aranha, A. L.	58051
Aranya, O. P.	56875
Archer, T. I.	56911
Arcon (Proprietary) Limited	57077
Arengo, C. G.	58262
Arens Controlls Ltd.	59261
Arnold, S. K.	57371
Arthur N. Jackson Limited	56470
Arunachalam, C.	57820
Asahi Kasei Kogyo Kabushiki Kaisha	56617
Asar, D. P.	56283, 59185, 59192
Asary, V. A. S.	58769
Ashley Accessories Limited	56547
Ashthana, R. P.	57864, 57865
Ashthana, S. U.	57865
Ashthana, V. K.	57865
Assalini, G.	58207
Associated Lead Manufacturers Limited	57223, 57224
Astell, G. W.	56897, 56898
Atag-trust	57466, 57475
Ateliers De Constructions Electriques De Charleroi	56207, 56208, 56486, 57203, 57575
Atterby, F. G. V.	59219
Atterby, P. A.	58824, 59219
Auer, L.	56671, 58069
Augereau, G.	57654
Austland Limited	57924
Automatic Coal Cleaning Co. Ltd.	58782
Automatic Telephone & Electric Company Limited	56406, 56603, 56728, 56729, 56730, 56731, 57144, 57213, 57324, 57506, 57507, 57961, 58016, 58017, 58215, 58447, 58497, 58549, 58550, 58770, 58771, 58806, 58981
B	
Babcock and Wilcox Limited	56980, 57186, 57572, 57916, 58386, 58704
Backer Electric Co. Limited	56435
Badische Anilin & Soda-Fabrik Aktiengesellschaft	56357, 58573, 59052
Bahnson, (Jr.) A. H.	58895

Name	Register Numbers.
B—contd.	
Bakelite Limited	57094, 57095, 57459.
Baker, A. L. L.	57004
Banerjee, B. C.	57376
Banerjee, Bejoy	58620
Banerjee, Bireswar	56265
Banerjee, S. P.	58940
Baniel, A. Dr.	58985, 58986, 58987.
Baranwal, D. P.	56753
Barar Beads Manufacturers Private Ltd.	58316
Bardt, H. J.	58705
Barth, H. R.	59099, 59211, 59212.
Bartrev, Limited	56565
Basu Malik A.	57011, 58035, 58036, 58245, 58246.
Basu Mallik, M.	57011, 58035, 58036, 58245, 58246.
Bata Shoe Co. Private Ltd.	58728
Bates Manufacturing Co.	56563
Batra, V. K.	57123, 57370.
Batthey, W. K.	58332
Baxter, E. F.	58988
Bayerische Motorenwerke A-G.	56548
Bayliss, Wiley & Co. Limited	56536
B. B. Chemical Co. Ltd.	59263
Beard, C. G.	57255
Beards, B. M.	57173
Beckmann, P.	57209
Belik, E.	57343, 57344.
Bell Brothers (Domestic) Limited	57571
Belliss & Morcom Limited	56448
Bellomo, A.	57837, 57878.
Benjamin Electric Ltd., The	58061
Bensley, W.	57492
Benson, G. E.	56332
Benson, W. E.	56382
Berger, A.	58043
Berry, E. V.	56318
Beyer Peacock and Co. Ltd.	57346
Bezouska, V.	58026
Bhalkikar, B. M.	57998
Bhasin, J. C.	56362
Bhathena, A. S.	59159
Bhattacharyya, T.	57172

Name.	Register Numbers.
B—contd.	
Bhaumik, S. C.	56936, 57363, 59003.
Bhave, K. P.	56782
Bhingarkar, R. V.	59116
Bhushan, J.	58816
Birmingham Small Arms Company Limited, The	56213, 56214, 56642.
Blache, A.	57515
Blackford, B. B.	56906
Blanchi, S.	57279
Bleachers' Association Limited	56483
Blumberg, R. Dr.	58985, 58986, 58987.
Blum, J.	56351
Bonamini, C.	58787
Bonas Bros. Ltd.	59071
Boots Pure Drug Company Ltd.	56526, 56641, 56736, 57054, 57431, 57929, 57951, 58744, 58763.
Bose, N.	56831
Boundy, F. J.	58928
Braband Corporation Ltd., The	56955
Bradford Dyers' Association Limited, The	56483
Bradley Container Corporation	56785
Braithwaite & Co. (India) Limited	56706, 57361, 57795.
Brandl, W.	58732
Bright Brothers Private Ltd.	59026
Bristol Aero Engines Ltd.	56352, 56353, 56778, 59092.
Bristol Repetition Ltd.	58262
Britannia Engineering Co. Ltd., The	58479
British Bata Shoe Co. Limited, The	56545
British Cotton Industry Research Association, The	56382, 57030, 58777.
British Dielectric Research Limited	56810, 57215, 57701.
British Drug House Limited, The	57528, 57582, 58144, 58188, 58931, 58983, 59157.
British Federal Welder and Machine Co. Limited	56638, 56685.
British Filters Limited	56587
British Insulated Callender's Cables Limited	56277, 56296, 56535, 56718, 56777, 57699, 57700, 57849, 57850, 57954, 58632, 58774, 58875, 58990, 59167, 59168.
British Insulated Callender's (Submarine Cables) Ltd.	56917, 58166.
British Internal Combustion Engine Research Association, The	57053
British Jute Trade Research Association, The	58015
British Nylon Spinners Limited	56741, 57766, 58851.
British Petroleum Co. Limited, The	56693, 56694, 58906.

Name

Register
Numbers.**B—concl'd.**

British Rayon Research Association, The	57216, 57217.
British Rubber Producers' Research Association, The	57276, 58837.
British Tabulating Machine Co. Limited, The	56245, 56297, 56672, 57375, 57728, 58155, 58163, 58342.
British Telecommunications Research Limited	56450, 56635, 56750, 57067, 57099, 57349, 57815, 57847, 57848, 57897, 57898, 57927, 58143, 58254, 58258, 58497, 58589, 58590, 58752, 59091, 59153, 59161.
British Thomson-Houston Co. Ltd., The	57599, 57772, 58212, 59184.
British Timken Ltd.	58444, 58834.
British United Shoe Machinery Co. Ltd., The	59062
British Vacuum Flask Co. Ltd., The	58667
Brown Boveri & Co. Limited	56293, 57205.
Brunet, A. C.	58721
Brunt, C. H.	58232
Buchi, A.	56599
Buckeye Steel Castings Co., The	58350
Buderus' Sche Risenwerke and Stanton Iron Works Co., Ltd.	56292
Buncel, E.	59027
Bundy Tubing Co.	56246, 56608.
Burke, O. W.	57487.
Burke, O. W. (Jr.)	59055, 59243.
Burrington, H. W.	57660, 57716, 58354.
Butticaz, A.	58499
Buttner-Werke Aktiengesellschaft	57536

C

Cable Covers Limited	56338, 57133.
Caffi, V.	56883
Calanda-Stiftung	57995
California Research Corporation	56505, 56546, 56735, 57193.
California Spray-Chemical Corporation	57152
Calumet and Hecla, Inc.	57606
Canadian Celanese Ltd.	57628
Canadian Patents and Development Limited	56490
C. A. Parsons & Co. Limited	57685, 58711, 58779, 58932, 59228.
Capdevila, G. M.	56484
Capra, G.	58904
Capron, M. V. F.	56835
Carborundum Company, The	56358, 56755.

Name	Register Numbers.
C—contd.	
Carl Freudenberg Kommanditgesellschaft Auf Aktien .	56711, 57826, 59108.
Carlo Erba S.p.A.	57154, 57904.
Carl Zeiss-Stiftung	57697
Carrier Corporation	56771, 56923, 57336, 57337, 57734.
Casablancas High Draft Co. Ltd.	59095, 59124, 59162, 59163.
Caterpillar Tractor Co.	58205, 58887, 58938, 59242.
C. C. Wakefield & Co. Ltd.	58277
Cementation Co. Limited, The	57523, 58742, 58743.
Cement Linings Pty. Ltd.	58220, 58221.
Centre National De La Recherche Scientifique	57121, 57338.
C. F. Boehringer & Soehne G.m.b.H.	57117, 57676, 58001.
Chairman, Indian Tea Association, The	56830
Chakradeo, L. M.	58133
Chakradeo, M. L.	58133
Chakradeo, P. C.	58133
Chakradeo, P. L.	58133
Chakradeo, S. L.	58133
Chakradeo, U. L.	58133
Chakradeo, V. L.	58133
Chandak, G. K.	59002
Chandra, K.	58816
Chari, T. L.	58678
Charlton Adel Taylor	57483
Chas Pfizer & Co. Inc.	56368, 56409, 56452, 56655, 56656, 56852, 56990, 57124, 57125, 57477, 57478, 57655, 57680, 57969, 57978, 57979, 57980, 58009, 58103, 58195, 58196, 58197, 58488, 58501, 59154, 59241.
Chatterjee, B.	58295.
Chatterjee, S. K.	59123
Chatterji, L. B.	56756
Chatterji, L. G.	56756
Chaudhry, M. A.	57257, 58145, 58395, 58576, 58577.
Chaudhuri, D. N.	56263, 56264, 56340, 56434, 56474, 56933, 58503.
Chemical, Industrial & Pharmaceutical Laboratories, Limited, The	56240
Chemie Grunenthal G.m.b.H.	56475, 59232.
Chief Engineer, Hirakud Dam Project	58266
Chinoin Gyogyszer Es Vegyeszeti Termekgyara R. T.	58952, 57406, 57997.
Chitalia Brothers	58960
Chleboun, J. Ing.	58917

Name

Register
Numbers.

C—contd.

Chloride Electrical Storage Company Limited, The	56790, 56811.
Chaudhry, P. N.	56258, 56278.
Churchill, H. W. S.	57139
Ciba Limited	56222, 56325, 56377, 56439, 56442, 56443, 56444, 56445, 56446, 56447, 56485, 56487, 56494, 56507, 56524, 56555, 56612, 56659, 56669, 56670, 56683, 56734, 56774, 56775, 57033, 57072, 57084, 57085, 57086, 57087, 57134, 57160, 57161, 57162, 57163, 57197, 57211, 57331, 57342, 57484, 57525, 57526, 57539, 57540, 57560, 57563, 57567, 57583, 57588, 57589, 57600, 57611, 57621, 57629, 57631, 57635, 57636, 57637, 57638, 57649, 57668, 57669, 57670, 57671, 57672, 57675, 57677, 57690, 57691, 57722, 57729, 57740, 57776, 57778, 57791, 57792, 57793, 57801, 57829, 57895, 57901, 57902, 57903, 57972, 57973, 58000, 58002, 58014, 58031, 58044, 58045, 58090, 58091, 58092, 58118, 58141, 58156, 58181, 58182, 58183, 58184, 58185, 58186, 58226, 58278, 58279, 58434, 58440, 58459, 58460, 58468, 58475, 58516, 57517, 58531, 58540, 58541, 58542, 58651, 58652, 58653, 58658, 58760, 58795, 58796, 58817, 58831, 58866, 58876, 58877, 58948, 58966, 58993, 58994, 59007, 59041, 59053, 59096, 59104, 59115, 59125, 59126, 59183, 59247, 59248.
Cilag Limited	56363
Cink, A. Ing.	58671, 58672, 58673, 58674, 58675.
Clarke, Chapman & Co. Ltd.	58696
Clark, J. B.	57873
Claude Paz & Visseaux	59262
Clayton Manufacturing Company	56789
Clemens, R.	58260
Clubb, G. A.	58850
Cluett, Peabody & Co., Inc.	56757, 56758, 56915, 56916, 57735, 57736, 56737, 57738, 57867.
Clyde Rubber Works Company Ltd., The	57807
Coal Industry (Patents) Ltd.	58239, 58616, 59264.
Cohen, A. L.	56549
Cohen, L. H. S.	56549
Cole, R. A.	58583

Name

Register
Numbers.*C—contd.*

Colgate-Palmolive Co.	56688, 57397, 58010, 58105, 58668.
Colmol Company, The	57667, 57900, 58110, 58180, 58513, 58514.
Colombowalla, E. R.	56309
Combined Locks Paper Co.	58889, 58890.
Combustion Engineering Inc.	56571
Comerio Ercole S.p.A.	58008
Commercial Solvents Corporation	58153
Commissariat A L'Energie Atomique	56855, 57413, 57607, 57595, 57640, 57663, 57696, 58819.
Compagnie Francaise Des Matieres Colorantes	56410, 56945, 57015, 58154, 58249, 58624.
Compagnie Generale D'Electricite	58725
Compagnie General De Telegraphic Sans Fil	57317, 58918, 58919.
Compagnia Nacional De Productors	58389
Consolidated Pneumatic Tool Company Limited, The	56873
Construction Mecaniques S. A. Renens	57577
Conte	57126
Correa, E.	59021
Costa, L. Dr.	58030
Council of Scientific and Industrial Research	56235, 56251, 56310, 56322, 56391, 56532, 56581, 56582, 56703, 56704, 56705, 56724, 56725, 56726, 56817, 56818, 56935, 57007, 57013, 57267, 57268, 57541, 57884, 57886, 57887, 57888, 57935, 57936, 57937, 57938, 57958, 58007, 58085, 58203, 58243, 58244, 58305, 58352, 58353, 58382, 58383, 58384, 58528, 58529, 58552, 58553, 58554, 58597, 58660, 58661, 58662, 58663, 58730, 58756, 58757, 58868, 58869, 58870, 58902, 58903, 58909, 59011, 59088, 59250.
Courtaulds Ltd.	58358
Cousins, S. (Miss)	58534
Creed and Company Limited	56303, 56375, 56437, 56878, 57132, 57374, 57471, 57497, 58476, 58792.
Crespi, G.	56838
Crompton Parkinson Ltd.	57275
C. T. Electrical Controls Limited	58404, 58405.
Cuckson Textile Proprietary Limited	56388
Cvikl, E.	57869

Name

Register
Numbers.

D

Daiichi Seiyaku Co. Ltd.	57078
Daimler-Benz Aktiengesellschaft	56243, 56244, 56440, 56441, 56523, 56657, 56658, 56890, 56896, 56966, 57002, 57003, 57232, 57233, 57234, 57385, 57386, 57387, 57486, 58113, 58363, 58364, 59063.
Dalal, M. K.	58584
Dallow, Lambert and Company Limited	56591
Dalmia Cement (Bharat) Limited	57012
Danawala, M. J.	58268
Dadekar, S. R.	57093, 57885.
Danes, M. C.	58721
Darwish, S.	56994
Das Gupta, N. B.	58446, 59137.
Das Gupta, N. C.	58175
Das, K. C.	58096, 58147, 58280, 58281.
Das, R. K.	56399
Das, R. N.	56831
Das, S. C.	58893
Das, S. N.	56761, 56762.
Dass, T.	57382
Davidson & Co. Ltd.	58880
Davies, A. G.	59027
Davy and United Engineering Co. Limited	56373, 56374.
D'Cruz, I. J.	57866
Deck, P. R.	58084
Deep Dye Industries Inc.	57017
Delerue, D.	57104
DeLong Corporation	57844
Dembowski, H.	58499
De Nota, Prof. V.	57407
Deodhar, C. P.	57713
DePenning, B. A. E. (Mrs.)	57194
DePenning, M. G. (legatee of Vivian Edward DePenning deceased)	56646
Deprez, A. M.	58473, 58848.
De Teramala, P. M. G.	56261
Deutsche Gold-und Silber-Scheideanstalt vormals Roessler	56815, 57412, 57522, 58179, 58604, 58773.
De Varda, G.	57552
De Vaseoncelos, J. C.	57056

Name	Register Numbers.
D—contd.	
Devidayal Stainless Steel Industries (Private) Ltd.	58959
Devoe & Raynolds Company, Inc.	56743
Dexion Ltd.	57751
Dexter and Company (High Wycombe) Limited	57430
Deyrail, C.	58329
Dhand, D. K.	56223
Dhanji, P.	56284, 56285.
Diamond Alkali Company	57024, 57025, 58292, 58750, 58891.
Didier-Werke A. G.	57065, 57420.
Die Designs Proprietary Limited	57615
Diffusion Alloys Ltd.	58433
Digvijay Industries	56342
Dilrangan Plastic Corporation	57249
Director, Haffkine Institute, The	58832
D. Napier & Son Limited	56607, 56749, 56853, 56854, 56944, 56978, 57239, 58012, 58623, 58841, 58842, 58860, 59051, 59061.
Dobarmann, W.	59189
Dobeckmum Britain Ltd.	58427
Dobson, J. D.	58596
Doctor, D. M.	57862
Doi, M.	58209
Donaldson, H. M.	56687
Dorman & Smith Limited	56493, 56576.
Dorman Sprayer Co. Ltd., The	58064
Dorr-Oliver Incorporated	56329, 56432, 57058, 57410, 58204, 58802, 58992.
Doskocil, R. J.	57343, 57344.
Douglas Fraser & Sons Limited	56467, 56468, 58815, 58714.
Doumet, M. E.	58822
Dow Chemical Company, The	56335, 56533, 56791, 57107, 57398, 57597, 57752, 57753, 57797, 57816, 57942, 57976, 58020, 58178, 58452, 58563, 58640, 59013, 59047, 59132.
Dr. C. Otto & Comp G.m.b.H.	57206
Dronsfield Brothers Limited	56510, 58826.
Dronsfield, S. W.	56510, 58826.
D'Silva, Capt. A. N.	56678
Duchange, G.	57955
Duggal, B.	57959
Duncombe, E.	56710
Dungler, J.	57147, 57992, 57993.

Name	Register Numbers.
D—concl'd.	
Dunham-Bush, Inc.	58199
Dunlop, I. R.	57259
Dunlop Rubber Company Limited	56204, 56205, 56255, 56355, 56787, 56864, 57187, 57320, 57509, 57558, 57661, 57704, 57709, 57725, 57913, 58023, 58275, 58323, 58535, 58573, 58637, 58638, 59198.
Dunn, E. S.	56238
Duval, B.	57440
E	
Eastwood, J. A.	57394, 57395, 57441, 57535, 57684.
Ebrahim, I.	57290
Edvin Gustar Ferdinand Sandstrom	58300
Edwards, D. M., Shrimati	57950
Edwards, G. W.	57068, 57069, 57070, 57071.
Egami, I.	57524
Egen Electric Limited	56273
E. I. Du Pont De Nemours and Co.	57688, 57689, 58034, 58690, 58727.
Ekbote, S. G.	57057
E. K. Cole Limited	56570, 56826, 56866, 57049, 57554, 57555, 57556, 57711, 57799, 57800, 58374, 58398, 58471, 58699, 58722, 58858, 58937, 59206, 59207.
Elastic Rail Spike Company Ltd.	57280
Electraulic Presses Limited	56560, 56609, 56918, 57295.
Electric Storage Battery Co., The	58387
Electro-Kemisk A/s.	57769
Elektro-Motoren A.G.	56967
Elemelt Ltd.	58307, 58308, 58310, 58580, 58581.
Eli Lily and Company	56367
Elliot, H. J.	57130, 59217.
Emergy Limited	56275
Emgel, Dr. E.	57235
Engineer-in-Chief, Lighthouse Department, Ministry of Transport, Govt. of India, New Delhi	58406
English Electric Company Limited, The	56202, 56469, 57019, 57096, 57143, 57288, 57289, 58191, 58274, 58443, 58517, 58639, 58691, 58723, 59094, 59169.
English Steel Corporation Limited	56301, 57852.
Erie Resistor Ltd.	57932, 58055.

Name	Register Numbers.
E—contd.	
Erlenmeyer, H.	57777
E. Shipton & Company Ltd.	57028, 57446
Esso Research and Engineering Company	57353, 57605, 58466, 59019, 59151, 59170.
Esteve, S. C.	57618
Estirajes Balmes S. A.	57360
Etablissements Carel Fouche & Cie	58498
Etablissements Clin-Byla	57715
Etablissements Giroud Freres Les Successeurs de Hugues Giroud & Cie	57933
Etablissements NEYRPIC	56193
Ethyl Corporation	59192
Etrich, Dr. I.	56473
Executors of James Mills Ltd.	58025
F	
Fairbarin Lawson Combe Barbour Limited	56348, 57026, 57253, 57254, 58142, 58913, 58914.
Farbenfabriken Bayer Aktiengesellschaft	56286, 56488, 56707, 57236, 57247, 57418, 57650, 57651, 57786, 57859, 57870, 58068, 58164, 58754, 58780, 58783.
Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning	56543, 57485, 57551, 57614, 57674, 57718, 57719, 58380, 58381, 58622, 58716, 58719.
Farmaceutici Italia S. A.	56919
Farrand Optical Co., Inc.	57202
Feed Service Corporation	56241
Felt and Tarrant Manufacturing Company	56426
Ferns, G. A.	57505
F. Hoffmann-La Roche & Co. Aktiengesellschaft	56262, 56514, 56515, 56773, 56882, 56968, 57171, 57250, 57455, 57602, 57622, 57779, 57810, 57811, 57827, 57970, 58119, 58257, 58720, 58815, 58934, 59000, 59014, 59114, 59188, 59202, 59249.
Fiat Societa Per Azioni	57930, 58493.
Firestone Tire and Rubber Company, The	56289, 56290, 56369, 56976, 57029, 57352, 57714, 57755, 58083, 58370, 58450.
Firma Ernst Jacobi	59128
Fisher & Ludlow Limited	58688

Name	Register Numbers.
F—contd.	
Fisons Pest Control Limited	56492, 57286.
F. J. Collin Aktiengesellschaft	56221, 57896.
Fletcher, G. H.	57695
F. L. Smidth & Co. A/S.	56627, 58790, 58878, 58955.
Fogelberg, T. I. S.	57921
Food Machinery and Chemical Corporation	56418, 57533, 57534, 59048, 59101.
Ford, R. C.	56331
Forsvarets Fabriksstyrelse	57882
Fosberry, C. V.	57367
Foster, K. W.	56503
Foufounis, J. T.	56874
Four Oaks Spraying Machine Company Limited	56280, 56949.
Frank Speno Railroad Ballast Cleaning Co.	58836
Frenkel, M. S.	58631
Fresconite Ltd.	58078
Friedrich UHDE G.m.b.H.	56458, 58231.
Freyssinet, E.	58927
Fulmer Research Institute Limited	56419

G

Gajjar, N. I.	56481
Gandhi, K. M.	56934
Gandhi, P. C.	57814
Garcia, R. R.	57808
Gardella, A.	56327, 56436, 56544.
Gardella, C.	56327, 56436, 56544.
Garringtons Limited	57883, 58327.
Gay-Bell Corporation	56477, 56478, 56716.
Gebr. Stork & Co.'s Apparatenefabriek N. V.	57510, 57511.
Gebr. Vedder G.m.b.H.	57032
Geecon Limited	57527, 57919.
Geigy Company Limited, The	57079
Geimuplast Geiger & Mundt, O.H.G.	56554
General American Transportation Corporation	57174, 57175, 57176, 57177, 57178, 57179, 57180, 57181, 57182, 57183, 57244.
General Aniline and Film Corporation	57351, 57568, 57726, 58013, 58378, 58397, 58884, 59076.
General Electric Company	57277, 57585, 58120, 58126, 59078.

Name	Register Numbers.
<i>G—contd.</i>	
General Electric Company Limited, The	56654, 56768, 56828, 56856, 56872, 57245, 57300, 57402, 57426, 57521, 57733, 57879, 57989, 58040, 58041, 58070, 58099, 58100, 58165, 58288, 58289, 58448, 58591, 58724, 58874, 58978, 58991, 59186, 59208, 59209.
General Industries	59112, 59113.
General Railway Signal Company	56326
General Steel Castings Corporation	57301
George, E. Failing Co.	59016
George Fletcher and Co. Limited	58422
George, K. M.	56863
George Spencer, Moulton and Company (India) Limited	56383, 57746, 58968.
George Scott & Son (London) Ltd.	59256
Georgia Tech. Research Institute	58222
Gerard, A.	57038
Gerity Michigan Corporation	58908
Germani, M.	57869
Gestetner Limited	57399, 58644.
Gevaert Photo-Producten N. V.	56940, 57311, 58751.
G. D. Searle & Co.	58076
Ghosh, A. K.	56912
Ghosh, B. K.	56831
Ghosh, D.	58465
Ghosh, D. N.	57513
Ghosh, H.	58425
Ghosh, P. B.	56884
Ghose, R.	58074
Ghosh, S. B.	58127, 58128.
Ghosh, S. K.	56334
G. K. N. Group Services Ltd.	58388
Gilder, F. N.	57939
Gill, H. S.	58818
G. Johnson Brothers Limited	57894
Glaxo Laboratories Limited	56844, 57052, 57273, 57287, 57645, 57982, 58807.
Godfrey L. Cabot, Inc.	58312, 58313, 58314, 58315, 58316, 58317, 58318.
Godrej Soaps Private Limited	56429
Goetzwerke Friedrich Goetze Aktiengesellschaft	57135

Name

Register
Numbers.

G—concl'd.

Gohei Tanabe & Co. Limited	58830
Goleria, K. K. S.	56400
Gokhale, D. G.	56723
Gokhale, S. S.	57553
Goodman Manufacturing Company	57393, 57433
Goodman, M. B. P. (Mrs.)	56341
Goodyear Tire and Rubber Company, The	56311, 56312, 56313, 56328, 56413, 56414, 56455, 56636, 56845, 56846, 56847, 56947, 57271, 57272, 57490, 57501, 57502, 57503, 57441, 57442, 57994, 57955, 58189, 58256, 58502, 58633, 58634, 58635, 58765, 58896, 59237, 59238, 59239, 59240.
Gopal Glass Works No. 2, The	58086
Gora-Lee Corporation, The	56562
Grain Sorage (London) Limited	56298
Gratzmuller, J. L.	58059, 58261.
Great Lakes Carbon Corporation	56598, 57580, 58377.
Gremigni, G.	56987
Griffin, D. L.	58058
Grillet, L.	57899
Grob & Co. Aktiengesellschaft	58190, 58520.
Guest, Keen & Nettlefolds (Midlands) Ltd.	58290
Guglielmetti, P.	59180
Guislain, B.	57149
Guislain, P.	57149
Gupta, D. D.	57383
Gupta, J. P.	58504
Gupta, J. R.	59257
Gupta, S. R., A.N.C., Captain	57138

H

Haag, E.	58172
Hadfield, J.	57346
Hadfields Limited	59040
Hangenuk, Vormals Neufeldt & Kuhnke G.m.b.H.	58159, 58298.
Hamadait, H.	57890
Hamblin, L. F.	59049, 59050.
Hammerle, A. G.	57673
Hamoetza Hamadait (also known as the Israel Research Council)	56622, 57890.
Handley, J.	56695, 57253.
Hanfwerke Fussen-Immenstadt Aktiengesellschaft	58227

Name	Register Numbers.
H—contd.	
Hansen, H.	58393
Hardman & Holden Limited	56412
Harkensider, R. J.	57042
Harris, L. R. F.	57562
Harry Ferguson Research Limited	56887
Harsco Corporation	57893
Hashimoto, S.	56491
Hattori, R.	56858
Hausler, C.	58689
Havanto, Dr. V. K.	56350
Hay, H. R.	57000, 57809.
Hazelett Strip-Casting Corporation	59214
Hearn, R. H.	56396, 57905.
Hearn, S. L.	57905
Heberlein & Co., A. G.	57557, 58536.
Hebern, W. D.	56687
Heblikar, H. G.	56594
Hedges, J. D.	58556
Heindel, A.	58911
Heinrich Koppers G.m.b.H.	56295, 56781, 56794, 57190, 58293, 58781, 58975, 58976, 59052, 59226, 59253.
Heitmuller, Dr. H.	56473
Henry, M.	58789
Heracus Quarzschmelze G.m.b.H.	58941
Hercules Powder Company	56783, 57212, 57760, 57789, 58441.
Herculeus Powder Co. Inc.	58401, 58429, 58622.
Her Majesty's Post Master General, London	56650, 56737, 56738, 56748, 56805, 58158, 58864.
Herold, M.	57343, 57344.
Heuer, R. P.	57559
Heyman, H. F.	58157
Heyns, O. S.	59255
Hill, T.	56601
Hindle, A.	56766
Hindmarch, T.	57880, 57881.
Hindustan Robbin Manufacturing Co.	58214
Hivac Limited	56673, 58217.
Hoare, J. H.	57846
Hobbs, J. G.	58863
Hochstrasser, H. R.	58755
Holdich, W. J.	58900

Name	Register Numbers.
H—concl'd.	
Holo-Krome Screw Corporation, The	56727, 57508.
Holroyd, L. M.	58479
Hoover Limited	56824, 56825, 56943, 56979, 57146.
Horiuchi, J.	58333
Horsnell, J. R. A.	57868
Houdry Process Corporation	56877, 57227.
Howa Kogyo Kabushiki Kaisha	57698, 58698.
Howa Kogyo Kabushiki Kaisha (known as Howa Machinery Ltd.)	59225
Hughes Tool Company	56836
Humblet, F.	57226
Humza, M. A.	57372
Hunault, R.	57022
Hunter Engineering Co.	57298
Hungtington Heberlein & Co. Ltd.	57860
Hurwitz, H. Jr.	58626
Hussian, A. H. H. S.	56198
Huttenwerk Oberhausen Aktiengesellschaft	57653
Huttenwerk Rheinhausen Aktiengesellschaft	59201
Huwood Mining Machinery Limited	56822, 56823.
Hydril Corporation of California	56504
Hydrocarbon Research, Inc.	57045
Hytakos, A.G.	56675, 56691, 56692, 57806.

I

Imanura, T.	57340
Immovilli, S.	58995
Imperial Chemical Industries Limited	56200, 56201, 56209, 56424, 56425, 56577, 56623, 56624, 56653, 56699, 56700, 56780, 56889, 56909, 56956, 56962, 57034, 57141, 57199, 57319, 57325, 57326, 57364, 57380, 57381, 57445, 57543, 57544, 57574, 57647, 57648, 57662, 57765, 57824, 57825, 57872, 57907, 57908, 57966, 57967, 57968, 57990, 57991, 58019, 58131, 58148, 58160, 58161, 58238, 58250, 58414, 58415, 58442, 58477, 58608, 58686, 58687, 58808, 58844, 58883, 58974, 58989, 59136, 59155, 59204, 59205, 59221.

Name	Register Numbers.
<i>I—contd.</i>	
Imperial Tobacco Co. (of Great Britain and Ireland) Ltd., The	58149
Indhar, A.B.	58490
Indian Iron and Steel Company Limited, The	57598
Indian Oxygen & Acetylene Company Limited, The	56346, 56402, 56958, 56959
Indian Oxygen and Acetylene Company Private Limited, The	56991, 57048, 57060, 57061, 57188, 57473, 57474, 57569, 57570, 57803, 58255, 58294, 58602, 58897
Industrial Development Co. (Establishment)	56819
Industrial Development Corporation	57369, 57392
Inflico Incorporated	59022
Ingold, H.	58538
Institut rur Schienenfahrzeuge	57092
International Amemostat Holding Company	57641, 57642
International Combustion (Holdings) Limited	57043, 57044, 57312, 57408, 58472
International Engineering General Research and Licensing Company	57414
International Polaroid Corporation	57981
Intertype Corporation	59134
Inventa A.G. fur Forchung und Patentverwertung	58586, 59203
Inventio Aktiengesellschaft	57207
Irani, J. N.	58267
Ishizuka, K.	58333
Isrel, M.	58985, 58986, 58987
Iyer, M. P.	58969
Iyer, S. L. N.	56509, 56765
J	
Jacobi, E.	56376
Jain, K. C.	59034
Jaiswal, R. G.	57591
James F. Low & Company Ltd.	56601
James Mackie and Sons Ltd.	56929, 58357, 58523, 58532, 58611, 58670
James North & Sons Limited	57625, 57626
Jamnadas	59070
J. & E. Armfield Ltd.	58613, 58614
Jam, M.	57934
Jasmine Mills Private Ltd., The	58505
Jayakaran, Captain I.	57239
Jayaramdas, P.	58271, 59216

Name

Register
Numbers.

J—contd.

Jaybee Group Investments (Proprietary) Limited	56961
Jean Favard	57168
Jenaer Glasswerk Schott & Gen.	57514
Jessd, J. G.	57191
Jetha, H.	58018, 58269, 58270.
Jetha, M. H.	58973
Jet-Heet, Inc.	57918
J. L. Lue and Kemper Ltd.	58408
J. M. Huber Corporation	58706, 59022.
Joest G.M.B.H.	57318, 57727.
Johannes Erhard H. Waldenmaier Erben Suddeutsche Armaturen- fabrik	59100
Johnson, G.	56356
Johnson & Johnson	56529, 57119, 57379.
Johnstone, H. E.	58650
John Summers and Sons Limited	56924
John Thompson Water Tube Boilers Limited	57453
Joseph Lucas (Industries) Limited	57646
Joshi, S. P.	56566, 56567.
Jozif, J.	58026, 58610, 58916.
J. R. Geigy, A-G.	56254, 56330, 56404, 56405, 56519, 56520, 57016, 57415, 57531, 57576, 57593, 57594, 57770, 57995, 58053, 58251, 58343, 58507, 58547, 58643, 59020, 59109.
J. S. & F. Folkard Ltd.	59023
J. Steel & Sons Ltd.	58169
J. Stone & Company (Deptford) Limited	57023, 58734, 58735, 58736, 58737, 59024.
Just, W.	56997
J. W. Roberts Ltd.	59038

K

Kabushiki Kaisha Nagata Seisakusho	57944, 57945, 57946, 57947, 57948, 57949.
Kadabi, D. B.	56900, 56901, 56902.
Kagalwala, A.	58170, 58171.
Kaiser Engineers Overseas Corporation	59235
Kamegafuchi Boseki Kabushiki Kaisha	57861
Kapoor, B.	59010
Kapur, S. M.	56963, 57659.
Karamchand Premchand (Private) Ltd.	58480, 59133.

Name	Register Numbers.
K—contd.	
Karch, K.	57153
Kaur, R.	58805
Kelkar, G. M.	58202
Kelkar, M. G.	57877
Kellma, A. B.	56714
Kennell, R. J. W.	58799
Keramische Industrie-Bedrafs Rom. Ges. Paul Gatzke	57744
Kerr, W. A.	57838
Khaitan, K. S.	57547
Khan, A. H.	57424
Khan, G. U.	57424
Khan, K. U.	57424
Khan, M. U.	57424
Khanna, G. D.	58399, 58619.
Khanna, V. K.	57962
Kharadi, P. N.	58456
Khemani, G.	57283
Kherde, J. P.	58254
Khetan, P. L. (Mrs.)	56568
Khetan, R. K.	56568
Khorana, K. C.	57856
Khursedji, N.	59159
Kilburn and Company, Private Limited	56984
Kinarivala, R. J.	58683
Kinarivala, S. J.	58683
Kishore, K. C.	57423
Kishore, Seth R.	58004, 58758.
Klager, K.	57210
Klay, G.	56324
Klinger, K. G.	58248
Klochner-Humboldt-Deutz Aktiengesellschaft	56221, 56299, 56511, 56740, 57532, 57592, 58022, 58231.
Knapsack-Grieshein Aktiengesellschaft	58320
Knoll Associates, Inc.	58082
Knottnerus, L. F. S.	56401
Koehler Manufacturing Co.	57452
Koenig, J. L.	56676
Kohn, I.	58862
Kollmar and Jourdan, Aktiengesellschaft	59054
Koninklijke Industriele Maatschappij Voorheen Noury & Van Der Lande N. V.	56408

Name

Register
Numbers.**K—concl'd.**

Koninklijke Nederlandsche Hoogovens En Staalfabrieken N. V.	58715
Koshy, C. T.	58708
Kovacs, T.	57476
Krishnan, K. P. K.	58527
Krivka, J.	58026
Kriz, F.	56248
Krueger, R.	57940
Kruppa, W. J.	58024
Kruschandl, E. V.	58970
Krusius, E.	57666
Krusius, K.	57666
Kulkarni, B. D.	57996
Kulkarni, G. S.	57616
Kulkarni, M. D.	58095
Kulkarni, S. D.	56849, 56850.
Kumar, K.	58921
Kumar, R. R. Shrimati	58228
Kumar, R. R., Shrimati	58223

L

Laake Oy.	58996
Laboratoria Pharmaceutica Dr. C. Janssen N. V.	58745, 58746, 58747.
Laboratory for Electronics Inc.	58291
Lacour, R.	57279
Ladouce, P. D.	59081
L'Air Liquide, Societe Anonyme Pour L'Etude Et L'Exploitation Des Procedes Georges Claude	58972
Lakhi Trading Co.	58857
Lal, R. K.	56489
Lane Wells Co.	57302, 57781.
Landers, Frary & Clark	58800
Larson, B. G.	56596
Laval, C. Jr.	57221
Lawrence, E.	56459, 58677.
Leca (World) Ltd.	58426
Lecher, J.	56541
Lefebure, E.	57062
Legrand, A.	58136
Le Material De Traction Electrique	56384, 56385.
Leo Industrie Chimiche Farmaceutiche	58537

Name	Register Numbers.
L—contd.	
Les Laboratoires Dausse	56462
Les Usines De Delle (Societe Anonyme)	56595, 57754, 57952, 57953.
Le Tourneau-Westinghouse Company	57297
Lewis Berger & Sons Ltd.	57835
Libbey-Owens-Ford Glass Company	56395, 58107, 58108, 58146, 58522, 58748, 59231, 59236.
"LICENCIA" Talamanyokat Ertekesito, Vallatat	56953, 56954, 58362, 58524, 58612.
Light Carts	57313
Lilljegen, N. H.	56596
Lidemann, W.	57841
Lindmark, J. G.	58907
Ling, T. S.	59256
Linotype and Machinery Ltd.	57198, 57335, 57359.
Lipsey, Dr. L.	57208
Lockers (Engineers) Ltd.	57836
Lodaya, V. H.	59085
Lodge-Cottrell Ltd.	58038, 58445.
Lonza Elektrizitatswerke Und Chemische Fabriken Aktiengellscharft	56948
Lucey, A. G.	57157
Lummus Company, The	56803, 56837, 56868, 56869, 56879, 56880, 56895.
Lupton Brothers Ltd.	58253
Lurgi Gesellschaft Fur Warmetechnik m.b H.	56236
Luwa A.-G.	58500
L. W. A. Limited	56242

M

Mackeurtan, M. G.	57851
Macmull, A.	58304
Madhavarao, M. S.	58557, 58559.
Maersk Raffinaderiet	56431
Magnethermic Corporation	56390
Mahle, H.	57438, 57439.
Maier, E.	58030
Majumdar, K. K. Dr.	57434, 57840.
Malan, G. L.	56921
Malik, A. B.	57011
Malik, M. B.	57011
Manekshana, H. F.	56460
Mannesmann Aktiengellschaft	56250, 57693.

Name	Register Numbers.
M—contd.	
Mann, N.	57123
Mansoori, H. H.	57281
Mansoori, I. H.	57281
Mansoori, I. S.	57281
Mansoori, N. H.	57281
Mansoori, Y. H.	57281
Manufacture De Machines Du Haut-Rhin	58784
Manufactures Des Glasses et Produits Chimiques de Saint-Gobain, Chauny & Cirey	57489
Marchioli, G.	56987
Marconi's Wireless Telegraph Company Limited	56600, 57051, 57782.
Marjoram, E.	58169
Markham & Co. Ltd.	58749
Martin, A.	58562
Martin & Harris (Private) Limited	57159
Martin, J.	57731, 57732.
Masci, J. N.	56529, 59008.
Maschinenbau-Aktiengesellschaft Balgke	56932
Maschinenfabrik Augsburg-Nurnberg Aktiengesellschaft	57845
Maschinenfabrik Augsburg-Nurnberg A. G.	58814
Maschinenfabrik Buckau R Wolf Aktiengesellschaft	56389, 56721.
Maschinenfabrik Ruti A. G. vormal's Casper Honegger	57421, 57564.
Massey-Harris-Ferguson Inc.	58259
Massey-Harris-Ferguson (Manufacturing) Limited	56457
Material Industriel S. A.	57577
Matge, P.	58788
Mathew, T.	56645
Mathur, J. P.	56253
Mathur, L. B.	56859
Mathur, P. P.	56253
Mathur, V. P.	56253
Matsuda, I.	56234
May & Baker Limited	57366, 57389, 58065.
Mayer, F.	56415
McLaren, G. W. Jr.	56906
McLaughlin, H. R.	56349
Mechanical Products, Inc.	57306, 57307, 57964, 57965, 58707.
Megator Pumps and Compressors Limited	57055
Mehra, G. E., (Mrs.)	58037
Mehta, K., (Mrs.)	58301, 58319.

Name	Register Numbers.
M—contd.	
Mehta, M. K.	58301, 58319.
Mehta, N.	58236
Mehta, S. M.	58664
Meimberg, J.	57780
Meisen, H.	56665
Mela-Maschinenbau Und Reparatur Hanus Stimnes	56974
Menley & James Limited	56578, 59135.
Menon, C. R. B.	56689, 56690.
Menon, C. S.	56715
Menon, R. M. G.	57617
Menon, V. K. G.	56508, 56885, 57291, 57634, 58271, 58495, 58496, 59216.
Menon, V. K. U.	58495, 58496.
Menzen, P. Dr. Ing.	58311
Merck & Co., Inc.	57008, 57047, 57243, 57260, 57428, 57517, 58775, 58827.
Meshbery, P.	57706
Metalastik Limited	57264
Metal Box Co. Ltd., The	57702, 58823.
Metallegesellschaft Aktiengesellschaft	57128, 57876, 58403, 59173, 59174, 59175, 59176, 59177, 59178, 59191, 59215.
Metallschleuch-Fabrik Pforzheim Vorn. H.C.H. Witzenmann G.m.b.H.	57548
Metallurgical Chemists Ltd.	59164
Metalstrut S. R. I.	58717
Metal Trim Ltd.	58595
"Metapic" S. A.	56540
"METAPIC" S. A. HOLDING Luxembourgeoise	59138, 59139, 59140, 59141, 59142, 59143, 59144, 59145, 59146, 59147, 59148.
Meth, M.	57150
Metropolitan-Vickers Electrical Company Limited	56230, 56466, 56754, 57037, 57305, 57612, 57687, 57717, 58569, 59044.
Metropolitan Water Board	56471
Micro Electronics (India) Ltd.	56525
Mid-Century Corporation	56842, 57609, 57623.
Miller, B. A.	57042
Miller, R. W.	57042
Mining Engineering Company Limited, The	56287, 57914, 59171.
Ministerul Industriei Chimice	59098
Mistry, P. C.	56662, 56998, 57040.

Name	Register Numbers.
M—concl'd.	
Mitter, K.	58881
Mitter, K. C.	57819
Modern Plastic Machinery Corporation	57192
Mond Nickel Company Limited, The	56833, 58946, 59039.
Monk, E. T. S.	58922
Monotype Corporation Ltd., The	58509, 58510.
Monsanto Chemical Company	57156, 59093.
Monsanto Chemicals Limited	56433, 56626, 58324, 58325, 58741, 58764.
Montecatini Societa General Per L'Industria Mineraria E Chimica	56317, 56733, 56772, 56821, 56894, 56995, 57083, 57332, 57384, 57495, 57552, 57632, 57665, 57790, 57821, 57857, 57983, 57984, 58060, 58063, 58574, 58592, 58810, 59017, 59037, 59056, 59172.
MO OCH Domsjo Aktiebolag	58572
Mooleneers, J.	57129
Morgan Crucible Co. Ltd., The	58066
Morgenstern, D. M.	57412
Morren, Dr. Sc. H.	56604, 57694.
Morris Motors Limited	56972
Motoren-Werke Mansheim AG. Vorm Benz Abt. Stat. Motorenbau	57195
M-O Valve Company Limited, The	56229
Mueller, L. Dr. Ing.	57230
Mukherjee, S. L.	58506, 59097, 59251.
Muller, O.	58005
Muller, P. A.	58052
Munirathnam, T. C.	57633, 57812, 57863, 58006.
Munters, C. G.	56206, 57148.
Murphy Radio Limited	57601
Murray, C. W.	58422
N	
Naamloze Vennootschap Hollandse Signaalapparaten	57542
Nagaraja, A.	56203, 56476.
Nag, K. K.	58583
Naidu, V. V. R. R.	57293, 58094.
Nair, A. P. M.	59190

Name	Register Numbers.
N—contd.	
Nandy, S. R.	57705
Nara, J.	57500
Narasinham, V. R. L.	58551
Narayana Rao, A. R.	57292
Nash, R. J.	56411
Nath, A. V.	58894
National Cylinder Gas Co.	56228, 56797, 56798, 57303.
National Lead Co.	57834
National Malleable and Steel Castings Company	56809, 57512, 57783, 58029, 58198, 58798.
National Research Development Corporation	56427, 56586, 57200, 57262, 58392, 59043.
Natvarlal Bhikhabhai & Co., Private Ltd.	58676
Nazeer, A.	58601
Nebel, P.	56764
Nederlandse Organisatie Voor Toegepast-Natuurwetenschappelijk Onderzoek Ten Behoeve Van Nijverheid, Handel En Verkeer	57108, 58240.
Neeman, M. Dr.	57890, 58703.
Newton & Bennett Ltd.	58328
Newton, K.	59122
Newton, Chambers and Company Limited	56300
Nicholas Proprietary Limited	57036
Nicol & Andrew Limited	57089
Nigos Corporation	58371
Nihon Denki Tokei Kabushiki Kaisha	58825
Nihon Spindle Manufacturing Co., Ltd.	57630
Nitroglycerin Aktiebolaget	56632
Nitto Seishi Kabushiki Kaisha	57443, 57444.
Nordmark-Werke Gesellschaft mit beschränkter Haftung	57664
Noronha, F. (Mrs.)	58338
Norsk Hydro-Elektrisk Kvaelfakteselskab	58567
Norwich Pharmacal Company, The	56634, 58618, 58773.
Novo Terapeutisk Laboratorium A/S.	57931
Novotny, B. Ing.	58578
N. P. Metal Industries	58283
NSM-Apparatebau G.m.b.H.	58211
NSU Werke Aktiengesellschaft	56709
N. V. De Bataafche Petroleum Maatschappij	56314, 56379, 56380, 56392, 56407, 56701, 56851, 56913, 57074, 57075, 57076, 57112, 57113, 57167, 57269, 57400, 57456, 57457, 57458, 58098, 58134, 58135, 58216, 58272, 58273, 58373, 58484, 58485, 58486, 58587, 59012, 59036, 59106, 59107, 59150, 59220.

Name

Register
Numbers.*N—concl'd.*

N. V. Kominklijke Pharmaceutische Fabrieken v/h Brocades- Sthooman & Pharmacia	58361
N. V. Nederlandsche Combinatie Voor Chemische Industrie	58745, 58746, 58747.
N. V. Onderzoekingsinstituut Research	56260, 56339, 56542, 56613, 56870, 57590, 58718, 59234.
N. V. Philips Gloeilampenfabrieken	56232, 56233, 56302, 56337, 56372, 56539, 56564, 56629, 56630, 56660, 56661, 56679, 56746, 56747, 57151, 57842, 57843, 57922, 57943, 57985, 56820, 56928, 57403, 57404, 58046, 58047, 58334, 58335, 58336, 58337, 58379, 58646, 58713, 58811, 58933, 58961, 58962, 58963, 58982, 59005, 59025, 59079, 59080, 59218.
N. V. Stijfsel-En Glucosefabriek "Sas Van Gent"	57006
N. V. Tervalon Maatschappij Voor Voedingsmiddelen Op Wetens- chappelijke Basis (Scientific Food Co.)	57482, 59006.
Nvegaard & Co. A/S.	57619

O

Oakes, W.	58596
Ocrietfabriek N. V.	57278
Oesterreichisch-Alpine Montangesellschaft	57330
Okuna, H.	58947
Okuno, T.	58947
Oldham & Son Limited	56347, 58879.
Oletta, S. A.	57488
Olin Mathieson Chemical Corporation	56521, 56633, 57333, 57644, 57703, 57771, 57977, 58079, 58080, 58129, 58176, 58177, 58284, 58449, 58666, 58776.
Oliver W. Burke Jr.	57487
Oldham & Son Ltd.	56347, 58515.
Olsen, S. I.	58812
Olsson, C. F.	59075
Om Prakash	56985
O-M Spinning Machine Mfg. Co. Ltd.	56804
Ontario Research Foundation	56561
ORGANICO	56364
Organon Laboratories Ltd.	56279, 56319, 57761, 58997.
Orient General Industries Ltd, The	58944, 58945.
Orr & Sembower, Inc.	56530, 58627.
Ortho Pharmaceutical Corporation	58252
O'Sullivan, D. J.	57062
Owenos-Corning Fiberglas Corporation	58846

Name	Numbers.
P	
Paar, J.	56760
Packer, C. W.	57114
Paget, K. W.	56710
Pallemaerts, J. E. H.	56605
Palmer, B. W.	56795, 56796, 57329, 57365.
Pal, B. P.	57437
Pamani, R. G.	59035
Panjvani, M. K.	57422, 57750, 57960.
Panthaky, A. T.	58407
Pardhasaradhy, I.	56320, 56321.
Parekh, I. G.	58170, 58171.
Parmelee Plastics Co.	58939
Parmer, J. T.	57802
Parke Davis & Company	56620, 56888, 56914, 56992, 56993, 57100.
Patel, C. S.	58170, 58171.
Patel, K. H. Dr.	57355, 57436, 57917.
Patel, M. C.	58170, 58171.
Patentex, Inc.	56732, 57039.
Pathak, A. G.	58132
Patil, W. R.	57073
PECHINEY Compagnie de Produits Chimiques et Electro-metal- lurgiques	56975, 57027, 58871.
Penkala, E.	58595
Penta Chemical Industries (Pty.), Ltd.	57975
Perez, L. S.	56266, 57435.
Perfogit Societe per Azioni	56717, 56988, 57710, 59130, 59131.
Permutit Company Ltd., The	56649, 56930, 56965, 57110, 57707.
Persson, N. H.	57237
Pertrix-Union G.m.b.H.	58431
Pest Control Corporation	57906
Petrochemicals Limited	57425
Pharma-Craft Corporation	56393
PHENIX WORKS Societe Anonyme	57537
Phillips Petroleum Co.	58235, 58681, 58682, 58709, 58847, 59018, 59233.
Physikalische Studiengesellschaft Dusseldorf M.B.H.	58942, 58943.
Piermari, E.	58088
Pilkington Brothers Ltd.	58297, 58647, 58648.
Pillai, C. S.	58924
Pinkel, I. I.	56946
Pirelli Societa Per Azioni	58345

Name

Register
Numbers.**P—contd.**

Pittsburg Consolidation Coal Company	58102
Plastic and Industrial Corporation Private Ltd., The	58241, 58467.
Plastic Textile Accessories Ltd.	58712
Platt, S. H.	56359, 56360, 56361.
Plessey Company Limited, The	56922, 57451, 58835.
Plessis, Du M. G.	56937
PLODARI FRANCESCO Prima Fabbrica Italiana Serrature	56910
P. N. Mehta & Co.	56516
Poddar, S. N.	57855, 58390.
Polycell Products Limited	56381
Ponkshe, S. S.	56518
Ponnusamy, M.	57304
Postel, M.	58089
Pottkamper, G. L.	56628
Powell, E. J. F.	58797
Power Fumigants Limited	56259
Power Jets (Research & Development) Limited	56776, 58423, 58424, 58487, 58508, 58641, 59210.
Prasad, J.	58585
Prasad, R.	58585
Preformed Line Products Co.	58187, 58525.
Price, M. D.	58003
Price, W.	58548
Primakoff, G. G.	58236
Primavesi, D.	58867
Principal, Bengal Textile Institute, Serampore	58575
Pritehett & Gold and E. P. S. Co. Ltd.	57520, 58701.
Procter & Gamble Company, The	56920
Prochazka, R.	58073
Process Evaluation and Development Corporation	58093
Prvni Brnenska Strojirna	59009
Pyzel, R.	58905

R

"RADE KONCAR" Tvornica Elektricnik Strojeva	56378
Radio Corporation of America	56588, 57987, 58189.
Rafi, M.	58213
Rai Chowdhury, H. B.	56239
Rajagopalam, D. M. M.	56252
Rajan, A. N.	58558
Rajan, M. G.	58759

Name	Register Numbers.
R—contd.	
Ramacharan, Dr.	56557
Ramanen, G. V.	58910
Ramanujam, S.	57658
Ramaswami, D.	56801
Ram, Jagat	57137
Ramsey Corporation	56964
Randells, F.	56536
Rao, A. R. N.	57292
Rao, C. S.	56937, 58710.
Rao, G. D.	58435, 58436.
Rao, G. K.	58464
Rao, K. M.	58359
Rao, K. N.	56224
Rao, M. N. Dr.	56801, 57111.
Rao, P. A. M.	58917
Rao, S. S.	58697
Rao, T. D.	56556, 57105.
Rao, V. N. R.	56801
Rao, Y. S. P.	57184
Rapotinske Sklarny	56618
Raptakos, Brett & Company Private Limited	57368
Rauma-Repola Oy	57449, 58469, 58470.
Reckitt & Colman Ltd.	58296
Redman Process International, Inc.	59120
Regoma Company Ltd.	57405
Reichstein, T. Prof. Dr.	58054.
Reidel & Co.	58299
Reidinger, A.	58321
Remax Limited	57837, 57878.
Resource Use Limited	56315
Reutter, J. L.	56786
Reynolds Metals Co.	58560, 58561, 58609, 58615, 58621, 58833, 58840.
R. H. Dykehouse	56666
Rhein-Chemie G.m.b.H.	58263
Rheinpreussen Aktiengesellschaft fur Bergbau and Chemie	56558
R. H. Windsor Limited	56666
Ricardo & Co., Engineers (1927) Limited	56430, 56843, 56893, 56905, 58152.
Richard Nilson Aktiebolag	58112
Richter, J. W.	58519
Rinckhoff, J. B.	58024

Name

Register
Numbers.**R—concl'd.**

Ringdal, L.	57118
Ripke, A. C.	58956
Ritchie, E. G.	58820
Ritzelfeld, G.	57613
Ritzerfeld, W.	57613
Robain Ltd.	58369
Robert Bobby Ltd.	59254
Robert, R. A.	58788
Robertson, J. D.	56973, 57347, 57686
Robertson Thain Limited	57391, 58296.
Rockware Glass Limited	57120
Rodi & Wiememberger Aktiengesellschaft	57246, 58365, 58366, 58803, 58872, 58873, 58926.
Rohm and Haas Company	56291, 56770, 56793, 57263, 57299, 57784, 58286, 58451.
Romson Corporation	58518
Root-Lowell Manufacturing Co.	57496
Rosedale, C. A.	57109
Rosedale, N.	57109
Ross, C. R.	59196
Rouaux, M. E.	59179
Roy, J. V.	58193
Rubey, Owen & Co. Limited	57610
Ruetz, T.	57639
Ruhrchemie Aktiengesellschaft	56236, 56537, 59187, 59224.
Ruhrgas Aktiengesellschaft	58953
Runnel, R.	57925, 58474.
Runchhoddas, P.	56479, 56480, 56860, 56861, 57009.
Ruparal, G. W.	59089
R. W. Crabtree & Sons Limited	56610, 57871.
Rydboholms Aktiebolag	58980
Rymland, M. J.	58111
Ryser, E.	56420, 56421.

S

Sadhukhan, U. N.	58729
Sahai, L.	57437
Sahai, R.	56859
Saha, S. P.	58979
Saifoe, M. T.	57813
Sakanoue, T.	57986

Name	Register Numbers.
<i>S—contd.</i>	
Salfret Ltd.	58233
Sandal S.r.l.*	57678
Sanders, R. Y. Jr.	57775
Sandford, W. H.	59001
Sandoz, A. G.	56423, 56640, 56739, 56857, 57468, 59087.
Sandstrom, E. G. F.	58300
Sandvikens Jernverks Aktiebolag	57136, 57764.
Sankhala, V. K.	57974
Sanyal, A. B.	57730
Sarker, P. N.	57256, 57265, 58984, 59194.
Sarker, R. M.	56569
Sarrasin, A.	58702
Sarrasin, P.	58702
Sarup, G.	57794
Sathe, S. R.	57020
Sato, T.	58333
Satya Industries Ltd.	56871
Satyanarayana, M.	57111
Satyanarayana, N.	56572
Saunders Valve Co. Ltd.	58630, 58957.
Sauer, A.	56248
Savara, C. L.	57472
Savur, G. R. Dr.	56677
S. B. Penick & Company	56517
Schenck, H.	58027
Schenley Industries Inc.	56590
Schering, A. G.	58462
Schiff & Stern Gesellschaft m.b.H.	57798
Schild, F.	56950
Schlumberger Well Surveying Corporation	56648, 56969, 57196, 58461, 58838.
Schmidt, M.	56247
Schnellpressenfabrik Aktiengesellschaft Heidelberg	58346
Schnyder, O.	56559
Schofield, C. S.	57137
Schreiber, A.	58543, 58568.
Schuhfabriken Odermatt & Co. Aktiengesellschaft	57915
Schulpen, K. H. N.	56281
Scottish Mechanical Light Industries Limited	56752
Scripto Inc.	58028
Seaborne, T. L.	58200

Name	Register Numbers.
S—contd.	
Seaborne, T. L.	58676, 58680.
Seal, S. K.	56579
Seifert, G. W.	58400
Sen Gupta, A.	58122
Sengupta, S.	56371
Sen, K. C.	57437
Sentinel (Shrewsbury) Ltd.	59049, 59050.
Sequoia Process Corporation	58306
Sernetz, H.	56416
Sett, S. N.	56722
Sevin, R.	57068, 57069, 57070, 57071.
Shah, G. A.	59090
Shah, K. K.	58056
Shah, K. P.	69090
Shah, V. C.	58923
Sharma, B. N.	56767
Sharma, J. C.	57442, 58949.
Sharp, Jones & Co. Ltd.	58084
Shastri, G. Pandit	58435, 58436.
Shelley, T. H.	58958
"Shell" Research Limited	56461, 56619, 57041, 57334, 57409, 58097, 58101, 58230.
Shepherd, T. C. R.	58544, 58545, 58546.
Sheth, N. V.	57322, 57323.
Shivaji Works Limited	56592
Shri Dhar	58264, 59121.
Shri Ram Institute for Industrial Research	56482, 57358, 57822, 58804, 59029, 59030, 59031, 59032, 59033, 59149.
Sidhu, H. S.	56343, 56344, 56345.
Sidhwa, A. P.	57122
Sidhwa, T. P.	57122
Siemens Brothers & Co. Ltd.	56621
Siemens Edison Swan Ltd.	56368
Siemens & Halske Aktiengesellschaft	56257, 57419, 57480, 57620.
Siemens-Schuckertwerke Aktiengesellschaft	57805, 58174, 58265.
Signode Steel Strapping Co.	56237
Silberkuhl, W. J.	56210
Simmonds and Stokes (Niphan) Limited	57007
Simmons, L. R.	57088

Name	Register Numbers.
<i>S—contd.</i>	
Simon-Carves Limited	56702, 56907, 56989, 57519, 58150, 58375, 58478, 58700.
Simplex Electric Company Ltd.	56463, 57785.
Singer Manufacturing Co., The	57231, 57401, 57416, 57417, 57463, 57464, 57465, 57723, 57804, 57853, 57854, 58208, 58428, 58564, 58642, 58785, 59060, 59152.
Singh, C. P.	56593
Singh, H.	58229
Singh, R. W.	57957
Singh, S.	56495, 57839.
Singh, S. B.	56256
Singh, S. J.	57839
Singh, T.	56684
Sithram, T. S.	57155
Sjoman, T.	57102
SKF Kugellagerfabriken Gesellschaft mit beschränkter Haftung	56712, 57378, 57596, 58303, 59072, 59197.
Slazengers Limited	56304, 58168, 58201, 59082.
Smith Kline & French Laboratories	58481, 58482, 58483.
Societa Farmaceutici Italia	57082, 57920, 58167, 58692, 58693, 58694, 58695, 58733.
Societa Anonyme De Machines Electrostatiques	57189
Societe Anonyme des Manufactures des Glaces et produits Chimiques de Saint Gobain, Chauny and Cirey	57341, 57498, 57499, 57584, 57773, 57774, 57874, 57999, 58210, 58247, 58570, 58761, 59103.
Societe Anonyme : Dessins Etudes Outillage Mecanique, D.E.O.M.	57988
Societe Anonyme Des Usines Chausson	56881
Societe Anonyme De Traverses En Beton Arme Systeme Vagneux	56999
Societe Anonyme Pour L'Industrie De L'Aluminium	57586, 57587.
Societe Anonyme Schobesta	57788
Societe Carbochimique Societe Anonyme	56941
Societe D'Appareils De Controle Et D'Equipement Des Moteurs S. A. C. E. M., Societe anonyme	56386, 56387.
Societe d'Applications Generales d'Electricite et de Mecanique	56249, 57454.
Societe D'Electro-Chimie, D'Electro-Metallurgie Et Des Acieries Electriques D'Ugine	59064, 59065, 59066, 59067, 59068, 59069.
Societe De Prospection Electrique Procèdes Schlumberger	58402
Societe Des Forges Et Ateliers Du Creusote (Societe Anonyme)	56394, 57185.
Societe Des Laboratories Labaz	58912

Name

Register
Numbers.

S—contd.

Societe Des Usines Chimiques Rhone Poulenc	56307, 56315, 56788, 56886, 56926, 56938, 57461, 57462, 58139, 58140, 58413, 58801, 58882, 58925, 59028, 59073, 59074, 59129.
Societe Du Vacuum Concrete	57388
Societe Metallurgique Technique Et Commerciale	58656
Societe Nationale De Constructions Aeronautiques Du Sud-Quest	57538, 57561.
Societe Nouvelle Des Etablissements Brandt	56674, 58628, 58772.
Societe Pour L'union Des Transports Ferroviaires Et Routiers	56996, 57046.
Societe Technique Pour L'Industrie Nouvelle S. A. "Stin"	57316
Societe Technique Pour L'Utilisation De La Precontrainte (S. T. U. P.) (Procedes Preyssinet)	58915
Societe Triflux	57308, 57309.
Secony Mobil Oil Company, Inc.	56512, 56513, 58351.
Soc. P. Az. Faesite	59059
Soloco Basel A. G.	59110
Somaya, T. K.	58530
Somogyi, F. P.	57720
Sonti, V. R.	57103, 57603, 58491, 58892.
Soennecken, A.	56552, 56553, 56841.
Sorelux, S. A.	57488
South African Council for Scientific and Industrial Research	58888
Souza, O. X.	59193
Spalding, D. B.	56977
Sparkler Mfg. Co.	56686
Sp. A. "Vetrocoke"	57721
Spinnbau G.m.b.H.	57362
Spinnfaser A. G.	57467
Spiraz-Sarco Ltd.	59086
Spitzer, J. G.	57656
S. P. Kinney Engineers, Inc. of Panama	58330
Spooner Food Machinery Engineering Company Limited	56574
Srivastava TKL	56258, 56278.
S. Smith & Sons (England) Limited	57204, 57448.
Stahlgruber, Otto Gruber & Co.	57091, 58234.
Stahlwerke Bochum Aktiengesellschaft	56367, 56456.
Stamicarbon, N. V.	56199, 57447, 59222.
Standard Oil Company	56720, 58766.
Standard Pharmaceutical Works Ltd.	59181

Name	Register Numbers.
<i>S—contd.</i>	
Standard Telephones and Cables Limited	56438, 56528, 56573, 56600. 56647, 56951, 57131. 57228, 57229, 57373. 57469, 57470, 57550. 57652, 57858, 57923. 58032, 58033, 58123. 58417, 58418, 58438. 58439, 58539, 58669. 58738, 58739, 58793. 58794, 59200, 59246.
St. Anne's Board Mill Company Limited	57169, 57170, 58588, 58603.
Starer, E.	57739
Starer, S. Mrs.	57739
Stasee, R.	58839
State of Israel, Prime Minister's Office	58703
Statham Laboratories, Inc.	58138
Staubli, H. H.	57429
Staubli, O.	57429
Staubli, R.	57429
Stora Kopparbergs Bergslags Aktiebolag	58565, 58566.
Stephenson Corporation	57284, 57285.
Sterling Drug Inc.	56215, 56216, 56217, 56218, 56219, 56220, 57063.
Still, K. F.	56664
Stoessel, W. R.	56892
Stokland, S.	56891
Stothert & Pitt, Limited	56606
Strachan and Henshaw Limited	57432
Strategic-Udy Metallurgical & Chemical Processes Ltd.	57831, 57832, 57833.
Strong Electric Corporation, The	57578
Styrene Products Limited	56403
Suden Cezira Board, The	59254
Suddeutsche Kalkatiakstoffwerke Aktiengesellschaft	58403
Sugar Research Foundation Inc.	57005
Sulekha Works Ltd.	56713, 57266.
Sulzer Freres, Societe Anonyme	58223
Sumner, E. L.	56499, 56500.
Sundaram, V.	57830, 58067, 58396, 59083, 59156.
Sundararajan, K.	58901
Sunden, K. H.	58964
Svejda, V. Ing.	58917
Svenska Aktiebolaget Bromsregulator	56867, 58344.
Svenska Oljeslageri Aktiebolaget	56422
Svenska Rotor Maskiner Aktiebolag	56806, 56807, 56808, 56827.

Name	Register Numbers.
S—concl'd.	
Svenska Turbinfabriks Aktiebolaget Ljungstrom	57261
Svirskis, B.	56970
Swadeshi Industries Ltd.	57892
Sweet, C. M.	57010
Sylvania Electric Products Inc.	58282, 58950, 59213.
T	
Tabor, H. Z. Dr.	56622
Takakita, A.	58242
Takakita, M.	58242
Takakita, S.	58242
Takakita, T.	58242
Takeda Pharmaceutical Industries Limited	56931, 57251, 58865.
Takeda, M.	58526
Takita, N.	57001, 58935.
Takita, S.	56231
Talati, J. G.	56583, 58463.
Tamboli, J. K.	57021
Tata Iron and Steel Co. Limited, The	57315
Taylor, C. A.	57483
Taylor, T. I.	58416
Taymouth Industries Limited	57101, 58355.
Tecalemit Limited	56428, 56625, 58322.
Technicolor Corporation	58952, 59244, 59245.
Technicolor Motion Picture Corporation	56779, 56814.
Telefonaktiebolaget L. M. Ericsson	57145, 59223.
Telephone Manufacturing Company Limited	56751
Templeman, F. E.	56259
Tenter Steel Co. Ltd., The	57941
Tervalon N. V.	57482, 59006.
Tesage, C.	58499
TESLA, narodni podnik	59077
Texaco Development Corporation	57327, 57679, 58605.
Textile & Allied Industries Research Organisation, The	58929
Textile & Chemical Research Company Limited	56453, 56454.
Textool Co. Ltd.	58114, 58115.
Thakre, G. R.	58077
Thakur, D. K.	58372
Thapar, M. R.	59111
Thermos (1925) Limited	56282
Thodadrinathan, S.	58202

Name	Register Numbers.
T—contd.	
Thornhill, P. W.	56643
Thwaites, L. B.	58124
Time Incorporated	58762
Titan Co. A/S.	57050, 58855, 59199.
Tippett, S.	57807
T. & H. Smith Limited	58625
T. J. Smith and Nephew Limited	57345, 57565, 58206, 58843, 59004.
Tokyo Shibaura Electric Co., Ltd.	58731
Tomlinsons (Rochdale) Limited	56927
Tootal Broadhurst Lee Company Limited	57222, 58753, 58767.
Trading Co. Lte Hegt. & Co. Limited	58453
Transcontinental Development Co.	58582
Travenol International Inc.	57396
Treuinstitut, M.	56272
Trifax N. V. Chemisch-Pharmaceutische & Extractiebedrijven	56398
Tube Products Limited	57545, 58367.
Tuboplast Societe Anonyme	59158
Turbot, R.	57274
Turco Products, Inc.	56496
U	
UCLAF	56294
Uher, E.	56835, 58849.
Ullah, S. W.	59127
Unette Corporation	56763
Unilever Limited	56464, 56465, 56501, 56502, 56538, 56611, 56848, 56971, 57225, 57348.
Union Carbide Corporation (formerly known as Union Carbide and Carbon Corporation)	56365, 56366, 56597, 56812, 56813, 57018, 57106, 57140, 57294, 57608, 57889, 57909, 57910, 57911, 57912, 58042, 58071, 58116, 58218, 58219, 58339, 58340, 58341, 58828, 58829, 58886, 58951, 59042, 59195.
Union Chimique Belge S. A.	57489
Union Joinery and Importing Company Limited	56449
Union Joinery and Importing Co. Ltd., The	58607
Union Rheinische Braunkohlen Kraftstoff Aktiengesellschaft	56651
United Kingdom Atomic Energy Authority	56276, 56639, 57546, 57573, 57712, 57916, 58151, 58192, 58309, 58521, 58533, 58606, 58809, 58821, 58852, 58853, 58854, 58920, 58930.

Name

Register
Numbers.

U—contd.

United Plastics Industries Inc.	58977
United States Pipe and Foundry Company	56211, 56212.
United States Rubber Company	56925, 57787, 58726.
United States Steel Corporation	56451, 56497, 56960, 57354, 57427, 57604, 57823, 58104, 58162, 58224, 58287, 58665, 58861, 58967, 59165.
United Steel Companies Limited, The	57390, 57491.
Universal Oil Products Company	56225, 56226, 56227, 56744, 57450, 57828, 58130, 59057, 59058, 59252.
Universal Winding Company	57579
Uniterharzer Berg-Und Huttenwerke G.m.b.H.	58936
Uozumi, I.	59190
Upjohn Co., The	58430
Upton Electric Furnace Company	57328
Urs, R. P.	57255

V

Vaccarino, C.	57460
Vaccarino, G.	57460
Vacu-Blast Limited	58685
Vaid, D. N.	56267
Vakeel, S. M.	56644
Valongo, A. E.	57014, 57059, 57220.
V. A. P. Corporation Private Limited	57166
Varma, R. R.	56580
VDO Techometer Werks Adolf Schindling G.m.b.H.	58598, 58599.
Veb Elektro-Apparate-Worke J. W. Stalin, Hoffmannatrasse	58391
Veb. Fahrzeugelektrik Karl-Marx-Stadt	58347
Veb Leuna-Werke-Walter Ulbricht	58768
Veb-Maschinenfabrik Polysius	57314, 58494, 58786.
Veb Spinn-Und Zwirnereimaschinenbau Karl-Marx-Stadt	56614, 56615, 56616, 56799, 56800, 57090, 57165.
Veb Sturmlaternenwerk Beierfeld	57516
Veb Zentrale Entwicklung Und Konstruktion Des Electro-Maschinenbaues	58600, 58740, 58845.
Veb Zentrale Entwicklung Konstruktion, Zwickau Sa.	57516
Veeraraghavayya, N.	58302
Veilscher Magnesitwerke Aktiengesellschaft	59015
Venkataramanan, K. I. Dr.	58437
Venkateswarlu, C.	57111
Venygr, K. Ing.	58610

Name	Register Numbers.
V—contd.	
Vereinigte Aluminium Werke Aktiengesellschaft	58137
Vereingte Kapselfabrieken Nackenheim A. G.	56829
Vereinigte Österreichische Eisen Und Stahlwerke Aktiengesellschaft .	58898
Vergauwe, N.	56759
Verneaux, J. E. P.	58498
Verwaltungsgesellschaft der Werkzeugmaschinen-fabrik Oerlikon	56268, 56269, 56270, 56271, 56332.
Vickers-Armstrongs (Engineers) Limited	57971
Vielscher Magnesitwerke Action-Gesellschaft	59015
Visenjou, L. B.	57014, 57059, 57220.
Visvesvaraya, H. C.	57004
Viswanathan, H.	58659
Vltavsky, M.	56696, 56697, 56698, 56982, 56983.
Von Kohorn Eastern Corporation Limited	57479
Von Kohorn International Corporation	58965
Voumard, B.	56420, 56421.
Vyzkumny A Zkusebni Letecky Ustav. V Letnanech	57875
Vy-kumny A. Zkusebni Letecky Ustav	57928
W	
Waagner-Biro Aktiengesellschaft in Wien	59229, 59230.
Waddington, R. S.	57440
Wagon, F. M.	57518
Wahl Bros.	58899
Wallis, G. L.	57767
Walker, L. M.	57745
Walsh, C. L.	57926
Walzwerk Neviges Willy H. Schlieker & Co.	57248, 57282, 58173
Wang, H.	59119
Warburton, R. E. L.	59001
Warner-Lambert Pharmaceutical Company	58885
Watshem's Limited	57264
Watts, J.	56897, 56898.
Wayne Pump Co., The	57963
W. B. Simons Industries Inc.	58050
Weaving Research & Textile Commission Agents Ltd.	57956, 58011
Weber, E.	56500
Weco Products Company	57252
Wenzel, W. Dr. Ing.	58348

Name

Register
Numbers.

W—contd.

Weidner, W.	58075
Weil, W. M.	56986
Weiss, E.	56904
Welland, J. E. T.	57527, 57919.
Wellcome Foundation Limited, The	56663, 56839, 57529, 57549, 57566, 57581, 57747, 58048, 58072, 58106.
Weninger, P.	56840
Wenzel, W.	58027
Weslake, H.	58859
Western Electric Co. Inc.	56667, 56668, 56899, 58360.
Western India Tanneries Ltd., The	58856
Western States Machine Co., The	58454, 58455, 58457.
Westinghouse Air Brake Company	56522, 56719, 57530, 58049.
Westinghouse Brake & Signal Company Limited	56708, 56742, 57035, 57080, 57081, 57240, 57241, 57242, 57350, 57411, 58511.
Westman, K. B.	58684
W. Hartmann & Co.	57164
White, Child & Beney Limited	57066
White, G. K.*	57627
White, G. K.+	57627
Wicker, R. J.	56950
Wiesnagrotzki, E. Dr.	58109, 58349.
Wiggins, L. F.	57116
Wild-Barfield Electric Furnaces Limited	56981, 59227.
Williams, C. I.	56534
Williams, J. F.	56942
Willott, R. L.	56924
Wisconsin Alumini Research Foundation	57818
Witte, W.	56550
Woodal-Duckham Construction Co. Ltd.	58571
W. R. Grace and Company	57377
Wucher, R.	57682, 57683.
W. & T. Avery Limited	56903
Wyndham, G. A. M.	58594

Name	Register Numbers.
Y	
Yamaguchi, T.	58813
Yeomans Furnishings Limited	56527
Yerramilli Sitaramachandravara Prakassarao	57184
Young, R. A.	57763
Young, S. G.	56682, 56834, 57115.
Yurieff, N. S.	57504
Z	
Zakaries, L. Dr.	56323
Zakaries, J., Mrs.	56323
Zenith Radio Corporation	57296
Ziegler, K. Dr.	56288, 56305, 56821, 57494, 57790, 57984, 58060, 59172.
Zutshi, T. N.	56862
Zyma, S. A.	57356

PART VIII

Name Index (Designs), 1957

Name Index of Applicants in respect of Designs registered during the year 1957.

Name.

Class No. and Year.

A

A. M. I. (International), S. A.	3/57.
Aero Modellers (India)	3/57.
Ahmad, A. A. H.	3/57.
Ahmed, A. B.	3/57.
Ahmedabad Advance Mills Ltd., The	13/57, 14/57.
Ahmedabad New Textile Mills Co. Ltd., The	13/56, 13/57.
Aiyar, R. S.	1/57.
Aiyar, S. N.	1/57.
Ali, I.	1/57.
Amar Cycle Industries	1/56.
Amritsar Kohlu Factory, The	1/56.
Anchor Pressings Private Ltd.	1/57.
Arora, R. N.	4/57.
Arvind Mills Ltd., The	13/56, 13/57.
Ashok Silk Mills	13/57.
Ashoke Glass Works	5/56.
Ashraf, S. M.	5/56.
Asoka Mills Ltd., The	13/57.
Aswathaiah, B. V.	5/57.

B

B. R. Dhiman & Sons	1/57.
(M/s.) B. V. Aswathaiah & Brothers	5/57.
(M/s.) B. V. Aswathaiah & Sons	5/57.
Baidyanathdham Biri Co.	5/57.
Bajaj Brothers	1/57, 3/57.
Baluja Footwear Co.	5/57.
Bandoola Industrial Corporation	3/57.
Baroda Type Foundry	1/57.
Bata Shoe Company, Private Limited	3/57, 10/57.
Bayerische Motoren Werke Aktiengesellschaft	1/57.
Bechardas Spg. & Wvg. Mills Co. Ltd., The	13/56, 13/57.
Benjamin Electric Limited, The	1/57.

Name.	Class No. and Year.
B—contd.	
Berrison	1/57.
Bharat Calico Printing Mills	13/57.
Bharat Plastics Limited	3/57.
Bharat Suryodaya Mills Co. Ltd., The	13/57.
Bhattacharjee, S. K.	4/57.
Birdi Brothers	1/56.
Birdi Engineering Works	1/57.
Bombay Brass & Metal Works, The	1/57.
Bombay Calico Printing Mills	13/56, 13/57.
Bombay Dyeing & Mfg. Co. Ltd., The	13/57.
Bombay Union Dyeing Mills, The	13/56, 13/57.
Bright Brothers Private Limited	3/57.
Bux, K.	5/57.
C	
Calcutta Chemical Co. Ltd., The	4/57.
Calcutta Trading Corporation	5/56.
Calico Dyeing and Printing Mills Private Ltd.	13/56, 13/57, 14/57.
Calico Processors Limited	13/57, 14/57.
Carlsbad Mineral Water Manufacturing Company Private Limited	4/57.
Central India Spg. Wvg. & Mfg. Co. Ltd., The	13/57, 14/56, 14/57.
Century Spg. & Mfg. Co. Ltd., The	13/56, 13/57, 14/56, 14/57.
Ceylon House Textiles	14/56.
Chakraborty, S. K.	3/56.
Chand, U.	1/57.
Chaudhuri, D. N.	3/56.
Chesebrough—Pond's Inc.	4/57.
Chettiar, V. K.	5/57.
Commercial Ahmedabad Mills Co. Ltd., The	13/57.
Commonwealth Trust Limited, The	4/57.
Compagnie Marocaine De Brevets Poly- mecaniques	1/57.
Corona Sahu Co. Private Limited	13/56, 10/57.
Crown Spg. & Mfg. Co. Ltd.	13/56, 13/57, 14/56, 14/57.
D	
Dadajee Dhackjee & Co., Private Ltd.	1/57.
Dandumal, T.	12/57.
Das, B. C.	1/56, 1/57.
Das, M. M.	1/57.
Delhi Cloth & General Mills Co. Ltd., The	13/56, 13/57, 14/56, 14/57.

Name.

Class No. and Year.

D—contd.

Delhi Food Products (Private) Ltd.	4/57.
De Luxe Cosmetics	3/57.
Deshbandhu Sewing Thread Co.	5/56.
Dev, B. B.	5/56.
Devi, S. (Smt.)	3/57.
Dhanraj Mills (Private) Ltd.	13/56, 13/57, 14/57.
Dhiman, A. N.	1/57.
Dhiman, S.	1/56.
(M/s.) Doulatram Dyeing and Bleaching Mills .	13/57.
Dunlop Rubber Company Limited	3/56, 3/57.

E

Eagle Playing Card Mfg. Co.	5/56.
Eastern Paper Co., Private Ltd., The	5/57.
Elphinstone Dye Works, Private Ltd., The . .	13/57.
Enkay Rubber Mills	3/57.

F

Filip Limited	3/57.
Friends Type Foundry	1/57.
Fuji Bussan Company Ltd.	1/57.

G

General Electric Company Limited, The . . .	1/56.
Ghose, N. L.	1/56.
Ghosh, R.	1/57.
Gobindarajulu, S. C.	5/57.
Gopal, J.	5/57.
Groover's Sons	1/57.
Gujjar Singh & Sons	1/56.
Gupta, M. L.	5/56.
Gupte, R. C. G.	4/57.
Gurdittamal & Sons	1/57.

H

H. A. Nanji & Co.	1/57.
H. A. Shah & Co.	13/56, 13/57, 14/57.
Halder, P. C.	4/57.
Handymen Industries (Private) Limited . .	5/57.
Hasanali, H. N.	3/57.
Hind Harmonica Industries	1/57.
Hind Plastic Works Private Ltd.	3/57.

Name.	Class No. and Year.
H—contd.	
Hindustan Embroidery Mills Private Ltd.	9/56, 9/57.
Honest Moulding Works	1/57.
Hoover Limited	1/57, 3/57.
Hotchand, P.	13/57.
Hussain, Z.	1/57.
I	
Ibrahim, M.	1/56.
Ilyas, M.	5/56.
Imperial Playing Cards Manufacturing Company, The	5/56.
India Tyre & Rubber Company Limited	3/56, 3/57.
India United Mills Ltd., The	13/56, 13/57, 14/57.
Indian Textile Mills	13/56, 13/57.
J	
J. C. Hui & Company	1/56, 1/57.
Jadiya Manufacturing Co.	1/57.
Jalan Dyeing & Bleaching Mills	13/56, 13/57.
Jamal's Corner Shop	1/57.
Jan Tin Industries	1/57.
Jiyajeerao Cotton Mills Ltd.	13/56, 13/57.
Johnson & Johnson	3/57.
Joshi, S. P.	3/56.
Juggilal Kamlapat Cotton Spg. & Wvg. Mills Co. Ltd.	13/56, 13/57, 14/57.
Jyoti Trading Co.	1/57.
K	
(M/s.) K. S. Kalra and Sons	5/57, 12/57.
(M/s.) Kalu ram Mahadeo Prasad	5/57.
Kansara, B. T.	1/57.
Kansara, H. M.	1/56, 1/57.
Karnani Metal Fabricators and Electro Depositors	1/57.
Kehar Singh Shankar Singh & Bros.	1/56.
Kesoram Cotton Mills Ltd.	13/57.
Khambhatwala, M. M.	4/56.
Khan, A. U.	1/57.
Khan, M. H.	5/57.
Khan, S. U.	3/56.
Khanna, H. S.	3/57.
Khatau, C. T.	1/57.

Name.	Class No. and Year.
K—contd.	
Khatau Makanji Spg. & Wvg. Co. Ltd., The	13/56, 13/57, 14/57.
Khetani Textile Industries, Private Ltd.	13/57.
Khurana, S. S.	5/57.
Kishore, R.	12/57.
Kissan Products Private Ltd.	4/57.
Klin Laboratories	3/57.
Krishna Calico Printing Co.	13/56, 13/57.
Krishnamurthy, R. S.	5/57.
Kum Kum Silk Mills	13/57.
L	
Lakhani Industries	1/57.
Lakhi Trading Company	1/57.
Lakshmiratan Cotton Mills Co. Ltd.	1/57, 3/57, 6/57, 13/56.
Lal, B.	5/57.
Lal, K.	4/56.
Lal Woollen and Silk Mills	13/57.
Larisch, W.	4/56.
Les Ateliers de Construction Ventola	1/57.
Linger-Werke G.m.b.H.	3/57, 4/57.
M	
Madanlall, P.	5/57.
Madras Type Foundry, The	1/57.
Mafatlal Fine Spg. & Mfg. Co. Ltd., The	13/56, 13/57, 14/56.
Majid, H. A.	1/57.
Malerkotala Cycle & Iron Industrial Co-operative Union Ltd.	1/57.
Manek & Co.	13/57, 14/57.
Mansukh Dyeing & Printing Mill	13/56, 13/57.
Marco Traders and Sukkur Stores	4/56.
Mazumder Bros. & Co.	3/57.
Mehndiratta, S. S.	5/57.
Mehta, M. S.	5/57.
Mela Ram & Sons	6/57, 11/57.
Metro Playing Card Co.	5/57.
Mital Rolling Mills	1/56.
Modi Spg. & Wvg. Mills Co. Ltd., The	13/57.
Mohta Traders	5/57.
Molite Industries	3/57.
Mudaliar, M. M. A.	5/57.

Name.

Class No. and Year.

M—contd.

Mudaliar, S. M. K.	5/56.
Mukherjee, A. K.	1/56, 3/56.
Mullick, K. C.	1/57.
Murugesan, M. S. P. S.	1/57.

N

N. C. Arya Snuff & Cigar Company	5/57.
Nadar, K. C. N. S. N. K.	5/57.
Nadar, M. P. S. B.	5/57.
Nadar, M. P. S. M.	5/57.
Nadar, M. P. S. N.	5/57.
Nadar, S. P.	5/57.
Nadar, S. P. A. D.	5/56.
Nadar, V. S. V. D.	5/56.
Nadar, V. S. V. C.	5/56.
Nagarik Swasthya Sangh	5/56.
Naidu, N. A. V.	1/57.
Nangpaul, R. M.	5/57.
Nanuvel, K. A.	1/57.
Naraindass and Narasingdass	5/57.
National Carbon Company (India) Ltd.	1/57.
Nelson & Company	1/57.
New Commercial Mills Co. Ltd., The	13/56, 13/57.
New Era Fabrics Private Ltd.	13/57.
New Field Paper Industries	5/57.
New India Rayon Mills Co. Private Ltd., The	13/57, 14/57.
New Mahalaxmi Silk Mills Private Ltd., The	13/57.
New Model Industries	1/56, 1/57.
New National Mills Limited, The	13/56, 13/57.
New Shorrock Spg. & Mfg. Co. Ltd., The	13/56, 13/57.
New Vinod Silk Mills Private Ltd., The	13/56.
Nimco Soap & Chemical Industries	5/57.
Norton & Company	1/57.
Nutan Mills Limited, The	13/57.

O

Obaidulla, H. M.	3/57.
Orient General Industries Ltd.	1/56.

P

P. L. and Brothers	1/56.
Pabitra Hindu Oil Mills	5/57.
Padam & Co.	1/57.

Name.

Class No. and Year.

P—contd.

Pahwa, T. R. (Shri)	13/57.
Pai, M. P. K.	5/57.
Panalal Silk Mills Private Ltd.	13/57.
Pankajam, C. T.	5/57.
Parsram, V.	5/57.
Patel, K. K.	3/56.
Phoenix Mills Ltd., The	13/56, 13/57, 14/57.
Pillai, T. P. K.	5/57.
Pillai, T. P. V.	5/57.
Prakash Industries	4/57.
Prakash Type Foundry	1/57.
Prestige Group Limited, The	3/57.
Pulgaon Cotton Mills Ltd.	13/57.
Pure Drinks (New Delhi) Private Ltd.	4/57.
Puri, S. S.	3/57.

R

Rafi, M.	3/57.
Raja Bahadur Matilal Poona Mills Limited, The	13/57.
Raja Ram Type Foundry	1/57.
Rajwaney, V. C.	1/57.
Ramniklal and Bros.	13/57.
Rao, A. N.	1/57.
Rasool, A. R.	1/57.
Ratnaswamy, D. N.	1/57.
Reddiar, V. R. G.	3/57.
Rehman, Z.	1/56.
Remington Rand of India Limited	1/57, 3/57.
Rolex Hosiery Works	11/57.
Routh, N. K.	1/57.

S

Saha, H. P.	1/56.
Salkia Plastic Industry	3/57.
Sarangpur Cotton Mfg. Co. Ltd., The	13/56, 13/57, 14/56, 14/57.
Sarkar, R. M.	1/56.
Saturn, A. G.	1/56.
Satyanarayana, S.	5/57.
Sheth, C. J.	4/57.
Seth Calico Printing Mills	13/56, 13/57.
Seth, R. L.	13/56.

Name.	Class No. and Year.
S—contd.	
Sethi, J. R.	1/57.
Shamim Brothers	1/57.
Shantilal (Private) Limited	3/57.
Sharda Paper Box Mfg. Co.	5/57.
Shariff, K. V. S. R.	5/57.
Sharma, B. P.	1/56.
Sharma, G. R.	1/57.
Sharma, P. N.	1/56.
Sharma, R.	3/57.
Shree Madhusudan Mills	13/57.
Shree Niwas Cotton Mills Ltd., The	13/56, 13/57, 14/56, 14/57.
Shree Ram Mills Limited	13/56, 13/57.
Shree Saraswati Concrete Works	4/56.
Shree Shubhlaxmi Mills Ltd.	13/56, 13/57.
Shree Vishwakarma Industries	1/56.
Siddique, S.	5/56.
Silver Cotton Mills Co. Ltd., The	13/56, 13/57.
Singer Manufacturing Company, The	1/57.
Singh, D.	5/57.
Singh, G.	5/57.
Singh, H.	5/57.
Singh, I.	5/57.
Singh, K. C. N. S. N. D. N. B.	5/57.
Singh, L. S. T.	1/56.
Singh, P. P.	1/56.
Singh, T.	1/56.
Singhania and Kapadia Manufacturing Company	3/57.
Somchand Brothers	1/56.
Sri Krishna Spg. & Wvg. Mills (Private) Ltd.	14/57.
Srinivassalu, C. A.	1/57.
Srinivassiyer, C. K. A.	13/56.
Standard Mills Co. Ltd., The	13/57, 14/56, 14/57.
Swadeshi Mills Co. Ltd., The	13/57, 14/57.
Swadeshi Cotton Mills Company Limited, The	13/57, 14/57.

T

Talukdar, S. S.	3/57.
Tata Mills Ltd., The	13/56, 13/57, 14/56, 14/57.
Tata Oil Mills Company Limited, The	3/57, 4/57.
Tavde, S. M.	13/57.
Telaria Novelties	1/57.

Name.

Class No. and Year.

T—contd.

Tentor Steel Company Limited, The	1/56.
Thanigaimalai, V.	1/57.
Timber Box Manufacturing Co.	3/57.
Tolia, M. D.	4/57.
Turissa Nahmaschinenfabrik A. G.	1/57.
Tyebbhair, G.	1/57.

U

Umar, M.	1/56.
Usha Dyeing Bleaching & Printing Mills Ltd.	13/57.
Utility Products Private Ltd.	1/57.

V

V. Chhibber & Co.	1/57.
Varma, K. L.	3/56, 4/56.
Vashno Calico Dyeing and Printing Mills, The	13/57.
Venkatesan, T. K.	1/56.
Victoria Mills Limited, The	13/56, 13/57, 14/56, 14/57.
Vijay Bharat Thread Mills (India)	5/57.
Vijay Dyeing and Printing Mills	13/56.
Vijay Silk Prints Private Ltd.	13/57.
Vijaya Pharmacy, The	5/57.

W

W. M. Still & Sons Ltd.	3/57.
Wahab, H. A.	1/57.
Walmsley, P.	1/56.
(M/s.) Wattan Singh & Sons	1/57.
Webbing & Belting Factory Private Ltd., The	14/57.
William Grant & Sons Limited	4/56.
Worli Chemical Works Private Limited	5/57.

Y

Yahya, M.	5/56.
Yasin, M.	1/57.
Yousuf, M.	1/57.

Z

Zenith Cycle Industries	1/57.
-----------------------------------	-------

MSB

List of Agents for the sale of Government of India Publications as on 31-12-57—contd.

[Continued from inner side of the front cover.]

DELHI—contd.

Bawa Harikishan Das Bedi (Vijay General Agencies),
9-E, Sadar Thana Road, G. P. O. Box No. 2027.
†Bebri Brothers, 188, Lajput Rai Market.
Bookwell, E4/8, Krishna Nagar.
B. Nath & Brothers, 3808, Charkhewataan (R).
City Book-Sellers (R), 1570, Sohanganj St.
Dhanwantra Medical & Law House (R).
Federal Law Book Depot, Kashmeri Gate.
Finance Budget Publishing Ltd. (R).
General Book Depot.
Govt. Book Agency (R).
Imperial Publishing Co., 3, Faiz Bazar, Daryaganj.
Indian Army Book Depot, 3, Daryaganj.
J. M. Jaina & Brothers, Mori Gate.
Kaviraj Harnam Dass (R).
Knowledge Emporium (R).
Mehra Law Agency (R).
Metropolitan Book Co., Delhi Gate.
N. C. Kansil & Co.
New Stationery House, Subzimandi.
Raj Kamal Prakashan Private Ltd.
Raja Brothers (R).
Summir Brothers (R).
Technical Books & Pubs. Co. (R).
Universal Book & Sty. Co.
University Book House (R).
Youngman & Co. (Regd.).

DHANBAD—

Ismag Co-Operative Stores Ltd., Indian School
of Mines & Applied Geology.
New Sketch Press (R).

DHUBRI (ASSAM)—

The Students Library (R).

ERNAKULAM—

Bharat Stores.
Probhat Book House (R).

FEROZEPUR—

English Book Depot.

GANDHIDHAM (KUTCH)—

Girdhar & Co. (R).

GAUHATI—

Mokshada Pustakalaya.

GAYA—

Sahitya Sadan.

GORAKHPUR (U.P.)—

Bharati Mandir 4, Hirapuri.
Halchal Sahitya Mandir (R).
Vishwa Vidyalaya (R), Nakhas Chowk.

GURDUR—

Janatha Agencies (R), Bus Stand, Gurdur Dist.,
Nellore.

GUNTUR—

Bharat Book Centre.

GWALIOR—

M. B. Jain & Brothers.
Saraswati Sadan (Loyal Book Depot).
*Supdt., Ptg. & Sty. (M. B.).
Tatar Bros.

HANAMKONDA—

Deccan Book Stall.

HAZARIBAGH—

Gaya Pershad Khandelwar (R).
Tilak Press (R), P. Box 89, P. O. Girdih.

HOSHIARPUR—

Universal Book Stores.

HYDERABAD—

*Director, Govt. Press (Publication Bureau).
Hyderabad Book Depot.
Peoples' Book House, Nizamabad Road.
Swaraj Book Depot, 1368, Lakri-ka-pul.

IMPHAL—

Tikendra & Sons (R), Maxwell Bazar.

INDORE—

Madhya Pradesh Book Centre (R).
National Law House (R).
Rupayana, Rampurwala Buildings, 57, M. G. Road.
Shri Indore Book Depot, 33, Mahatma Gandhi Road.
Swarup Brothers (R), Khajuri Bazar.
Wadhwa & Co., 56, Mahatma Gandhi Road.

JAGDALPUR—

Sudhakar Bros. (R).

JAIPUR CITY—

Bafua Book Depot (R).
Garg Book Co., Tripolia Bazar.
*Govt. Ptg. & Sty. Dept., Rajasthan.
Popular Book Depot (R), Choura Rasta.
Rajasthan Pustak Mandir, Tripolia Bazar.
Vani Mandir, Sawal Mansing Highway.

JAMMU—

Krishan General Stores, Raghu Nath Bazar.
Students' Stores, Raghu Nath Bazar.

JAMNAGAR—

Swadeshi Bastu Bhandar.

JAMSHEDPUR—

Amar Kitab Ghar, Diagonal Road, P. B. 18.
Gupta Stores.
Jamshedpur Co-operative College (R).

JODHPUR—

Chopra Brothers, Tripolia Bazar.
Dwarka Dass Rathi.
Kitab Ghar, Sojati Gate.
Mahesh Book House (R).

JUBBULPORE—

Modern Book House, Jawaharganj.
Universal Book Depot (R), Ganjupura.

JULLUNDUR CITY—

Hazooria & Sons, Mai Hiran Gate.
International Book & News Co., G. T. Road (R).
Jain General House.
Kailash Law Publishers (R).
Punjabi Publishers (R), Adda Hoshiarpur Bus
The Punjab Kitab Ghar (R).
University Publishers.

KANPUR—

Advani & Co.
Sahitya Niketan.
Universal Book Stall, The Mall.

KAPASAN—

Namdhar Brothers (R).

KHANDWA—

Abbas Stores (R), Sivaji Road.
The Suresh Trading Co.

KODARMA—

The Bhagawati Press, P. O. Thumsitelaia.

KOLAR—

Jai Hind Trading Corpn. (R), Park View.

KOLHAPUR—

Maharashtra Grantha Bhandar (R).

KOTTAYAM—

The Vidyarthi Mitram Book Depot, P. B. No. 8.

KOZHICODE—

K. R. Brothers (R).

KUMTA—

S. V. Kamat.

LUCKNOW—

Aquarium Suply Co. (R), Faizabad Rd.
Balkrishna Book Co., Ltd., Hazaratganj.
British Book Depot, 84 Hazaratganj.
Civil and Military Educational Stores (R), Sadar
Bazar.
Eastern Book Co., Lalbagh Rd.
Ram Advani, Hazaratganj.
Soochna Sahitya Depot (State Book Depot, U. P.).
Universal Publishers Ltd., Plaza Bldgs.
Upper India Publishing House Ltd., Literature
Palace.

LUDHIANA (E. P.)—

Loyal Book Depot.
Mohindra Brothers (R).
Nanda Sty. Bhandar (R), Pustak-Bazar.

MADRAS—

Accounts Text Institute, P. B. 760 Egmore.
Book Dist. Service (R).
C. Subbiah Chetty & Co., Triplicane.
Higginbothams.
K. Krishnamurthy, Mount Road.
M. Palme & Co., 3, Pycrofts Rd.
Praparch Adarsine (R), 5, Vurabadram St.
Presidency Book Supplies, 8, Pycrofts, Triplicane.
Simham Publishing Co.

List of Agents for the sale of Government of India Publications as on 31-12-57—concl'd.

[Continued from inner side of the back cover.]

- MADRAS—contd.**
South India Traders.
*Supdt., Govt. Press, Mount Road.
Vardhacharya & Co.
- MADURAI—**
E. M. Gopal Krishna Kone, North Chitra Street.
Oriental Book House, 258, West Masi St.
Vivekandada Press, 48, West Masi Street.
- MANDSAUR—**
Sikhwai News Agency.
- MANGALORE—**
Kanara College Book Co. (R).
U. R. Shenoy & Sons, Car Street.
- MASULIPATNAM—**
M. Seshachalam & Co.
Triveni Publishers.
- MEERUT—**
Chandra Bhan Puran Chand (R).
Hind Chitra Press.
Lyal Book Depot.
Prakash Educational Stores.
Universal Book Depot.
- MORADABAD—**
National Book Depot.
- MYSORE—**
Chandra Stores, New Statue Circle (R).
H. Venkataramiah & Sons, New Statue Circle.
J. Nanumal & Sons, Landsdown Bldgs.
Juvana Pustakalaya (R).
Peoples Book House, opp. Jagan Mohan Palace.
- MUZAFARPUR—**
Sri Krishna (R), Said Ali Rd.
- NAGPUR—**
New Book Depot, Modi No. 3, Sitabuldi.
*Supdt., Govt. Ptg.
Western Book Depot.
- NAINITAL—**
Consul Book Depot.
- NEW DELHI—**
Ajmeri Gate Paper & Sty. Mart., 1/6B, Block,
Ajmeri Gate Extn.
Amrit Book Co., Connaught Circus.
Anand Book House (R).
Bharat Law House (R), Karolbagh.
Bhawani & Sons, Connaught Place.
Central News Agency, Connaught Circus.
Empire Book Depot, 278, Aliganj, Lodi Road.
English Book Stores, 'L' Book Connaught Circus.
Faqir Chand Marwah & Sons, Khan Market.
Gupta Stationery Mart (R).
Hind Book House (R).
Jain Book Agency, Connaught Place.
Jayna Book Depot, Bank Street, Karol Bagh.
Luxmi Book Stores (R).
Mehra Brothers, 50-G, Kalkaji.
Mohanlal & Sons, Karol Bagh, New Delhi.
Navug Traders, Karol Bagh.
Oxford Book & Stationery Co., Scindia House.
Peoples' Publishing House (R), M. M. Rd., New
Delhi.
Raj Book Depot, 1, Bengali Mal Market.
Ram Krishna & Sons (of Lahore), 13/13, Connaught
Palace.
Saraswati Book Depot, 15, Lady Hardinge Road.
Shama Bros. (R).
Sikh Publishing House Ltd., 70/C, Connaught Place.
Suneja Book Centre, 24/90, Connaught Circus.
Taneja Book & Stationery Mart, Raisinha Road.
The Varsity Book Depot (R).
United Book Agency, 47, Amritkaur Market,
Paharganj.
- ONGOLE—**
Shri D. Sreekrishnamurthy, Prop. Abhyudaya Book
Circulating Co.
- PALGHAT—**
Shri V. K. Ramalingam Vadakkanthara (R).
- PATHANKOT—**
The Krishna Book Depot.
- PATIALA—**
Jain & Co., Bazar Shah Nashin.
*Supdt., Bhupendra State Press.
- PATNA—**
Bengal Law House (R).
Bharati Bhawan (R).
J. N. P. Agrawal & Co., Padri-ki-Havell.
Lakshmi Trading Co., Padri-ki-Havell.
Moti Lal Banarasi Dass.
- PATNA—contd.**
Novelty & Co. (R).
Pahuja Brothe rs Rajendra Path (R).
Scientific Book Co. (R).
*Supdt., Govt. Printing, Bihar.
- POONA—**
Deccan Book Stall, Ferguson College, Square Road.
Imperial Book Depot, 266, M. G. Road.
International Book Service, Deccan Gymkhana.
N. R. Bhalerao, 602, Shanwar Peth.
Raka Book Agency.
- PUDUKKATTAI—**
P. N. Swaminatha Sivam & Co., East Main Street.
- RAIPUR—**
Kasimud-Din & Sons, Gole Bazar (R).
Sahitya Bhandar (R), Girdhar Bhawan.
- RAJKOT—**
Mohan Lal Dossabhai Shah.
Sahitya Sangam, near Coronation Garden.
- RANCHI—**
Crown Book Depot.
Ideal Book Stores, Main Road.
- REWA—**
Goyal Brothers.
*Supdt., Govt. State Emporium.
- ROORKEE (U.P.)—**
Cambridge Book Depot (R).
- SAGAR—**
Students Book Depot (R).
- SECUNDERABAD—**
Hindusthan Diary Publishers.
M. Srishachalam & Co. (R).
- SILCHAR (ASSAM)—**
Shri Nishithi Sen (R).
- SHILLONG—**
Chapla Book Stall (R).
*Supdt., Assam Sectt. Press.
- SIBSAGAR (ASSAM)—**
T. Chutiya (R).
- SIMLA—**
Azad Kitab Mahal, Stall No. 13.
J. Roy & Sons (India) Ltd.
Maria Brothers, 94, The Mall (R).
Minerva Book Shop, The Mall.
New Book Depot.
*Supdt., Himachal Pradesh Govt.
- SONEPAT—**
United Book Agency.
- SRINAGAR—**
The Kashmir Book Shop, Residency Road.
- SURAT—**
Rachuatnik (R).
Sree Gajanan Pustakallaya, Tower Road.
- TRICHINOPOLY—**
Kalpana Publishers.
Palanippa Brothers, Teppakulam.
S. Krishnaswami & Co., Teppakulam.
- TRIVANDRUM—**
International Book Depot, Main Road.
Shri V. Rama Sharma (R).
*Supdt., Govt. Press, Travancore-Cochin.
- TUTICORIN—**
Shri K. Thilagarajan (R).
- UDAIPUR—**
Rajasthan Stores, outside Suraj Pole, Oswal
Bhawan.
Vidya Bhawan (R).
- UJJAIN—**Manak Chand Book Depot (R), Patni Bazar.
- VARANASI—**Bhartendu Pustak Mandir (R).
- VILLORE—**S. Venkatasubhan, Law Booksellers.
- VISAKHAPATNAM—**
Book Centre, 11/97, Main Road.
Gupta Brothers, Vizia Buildings.
M. S. R. Murthy & Co.
- WALTAIR—**
Swaraja Bhandar, Bhaji Market.
- Govt. of India Kitab Mahal, Janpath
Opposite India Coffee House, New
Delhi.
Govt. of India Book Depot, 8, Hastings
Street, Calcutta
High Commissioner for India in
London, India House, London,
W. C. 2.

For Local Sale
Only.
For all enquiries
and orders
from Europe
and America.





